

**EPA Superfund  
Record of Decision:**

**TUSTIN MARINE CORPS AIR STATION  
EPA ID: CA9170090022  
OU 02  
TUSTIN, CA  
09/28/2000**

**FINAL  
RECORD OF DECISION/REMEDIAL ACTION PLAN  
OPERABLE UNIT 2  
NO ACTION SITES AND AREAS OF CONCERN**

**MARINE CORPS AIR FACILITY  
TUSTIN, CALIFORNIA**

**JULY 2000**

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## Attachment

- A ADMINISTRATIVE RECORD SPECIAL COLLECTION INDEX FOR NO ACTION SITES**
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## ACRONYMS/ABBREVIATIONS

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ANL	Argonne National Laboratory
AOC	area of concern
ARAR	applicable or relevant and appropriate requirement
ASI	Advanced Sciences, Inc.
AST	aboveground storage tank
BCP	BRAC Cleanup Plan
BCT	BRAC Cleanup Team
BDL	below detection limits
bgs	below ground surface
BNI	Bechtel National, Inc.
BRAC	Base Realignment and Closure
Cal-EPA	California Environmental Protection Agency
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
COPC	chemical of potential concern
CSF	cancer slope factor
DCA	dichloroethane
DDD	dichlorodiphenyldichloroethane
DDE	dichlorodiphenyldichloroethene
DDT	dichlorodiphenyltrichloroethane
DON	Department of the Navy
DTSC	(Cal-EPA) Department of Toxic Substances Control
EPC	exposure-point concentration
ESI	expanded site inspection
FS	feasibility study
HHRA	human-health risk assessment
HI	hazard index
HQ	hazard quotient
HUD	(Department of) Housing and Urban Development
IAS	initial assessment study
IRP	Installation Restoration Program
JMM	J.M. Montgomery Associates
JP-5	jet propellant – Grade 5

LRA	Local Redevelopment Agency
LTA	lighter than air
µg/kg	micrograms per kilogram
MCAF	Marine Corps Air Facility
MCAS	Marine Corps Air Station
MCL	maximum contaminant level
MEK	methyl ethyl ketone
mg/kg	milligrams per kilogram
MSL	mean sea level
MWSS	Marine Wing Support Squadron
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NFA	no further action
OHM	OHM Remediation Services Corp
OU	operable unit
O/W	oil/water
PAH	polynuclear aromatic hydrocarbons
PCA	tetrachloroethane
PCB	polychlorinated biphenyl
PCE	tetrachloroethene
POL	petroleum, oils, and lubricants
PR	preliminary review
PRG	preliminary remediation goal
RAB	Restoration Advisory Board
RAGS	Risk Assessment Guidance for Superfund
RAP	remedial action plan
RCRA	Resource Conservation and Recovery Act
RFA	RCRA facility assessment
RfD	reference dose
RI	remedial investigation
ROD	record of decision
RWQCB	(California) Regional Water Quality Control Board
SARA	Super-fund Amendments and Reauthorization Act
SCS	SCS Engineers, Inc.
SI	site inspection

Acronyms/Abbreviations

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SP/RP	Specific Plan/Reuse Plan
SV	sampling visit
SVOC	semivolatile organic compound
SWDIV	Southwest Division Naval Facilities Engineering Command
SWMU	solid waste management unit
TAL	target analyte list
TCA	trichloroethane
TCE	trichloroethene
TDS	total dissolved solids
TIC	tentatively identified compound
TPH	total petroleum hydrocarbons
TRPH	total recoverable petroleum hydrocarbons
UCI	University of California, Irvine
UCL	upper confidence level
USACOE	United States Army Corps of Engineers
USDA	U.S. Department of Agriculture
U.S. EPA	United States Environmental Protection Agency
USMC	United States Marine Corps
UST	underground storage tank
VOC	volatile organic compound
VSI	visual site inspection
WBZ	water-bearing zone

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## DECLARATION

## **DECLARATION**

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### **SITE NAME AND LOCATION**

Marine Corps Air Facility (MCAF) Tustin  
Operable Unit (OU)-2  
Installation Restoration Program (IRP) Sites: IRP-2, IRP-9, IRP-13E  
Areas of Concern (AOCs): AD-04, AS-06, AS-08, AST-02, AST-04, MDA-04,  
MDA-07, MMS-01, MWA-03  
Orange County, California

### **STATEMENT OF BASIS AND PURPOSE**

This decision document presents the selected final remedial action for IRP-2, IRP-9, and IRP-13E and AOCs AD-04, AS-06, AS-08, AST-02, AST-04, MDA-04, MDA-07, MMS-01, and MWA-03 at MCAF Tustin in Orange County, California. The remedial action was developed in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended by the Superfund Amendments and Reauthorization Act of 1986 and, to the extent practicable, the National Oil and Hazardous Substances Pollution Contingency Plan. This Record of Decision (ROD)/Remedial Action Plan (RAP) has also been prepared in accordance with California Health and Safety Code Section 25356.1. This action is based on the administrative record file for these sites/AOCs.

The state of California (through the California Environmental Protection Agency Department of Toxic Substances Control [DTSC] and Santa Ana Regional Water Quality Control Board [RWQCB]) and the United States Environmental Protection Agency (U.S. EPA) agree on the selected remedy.

### **DESCRIPTION OF THE SELECTED REMEDY: NO ACTION**

No action is the selected remedy for IRP-2, IRP-9, and IRP-13E and AOCs AD-04, AS-06, AS-08, AST-02, AST-04, MDA-04, MDA-07, MMS-01, and MWA-03. In selecting the no action remedy for these sites/AOCs, the Department of the Navy (DON) has determined that the existing condition of the sites/AOCs is protective of human health and the environment.

Removal actions were conducted at MWA-03, IRP-2, IRP-9A, and IRP-9B. The Resource Conservation and Recovery Act action at MWA-03 took place in December 1997 and involved the excavation, transport, and treatment of 285 tons of total petroleum hydrocarbon (TPH)- and polynuclear aromatic hydrocarbon (PAH)-contaminated soil using an on-site thermal desorption unit. The non-time-critical removal action of soil at IRP-2 took place in May 1997. This action involved excavation and treatment of approximately 569 tons of PAH-contaminated soil. A non-time-critical removal action was conducted at IRP-9A between 10 July and 04 September 1997 and at IRP-9B between 14 October 1998 and 05 January 1999. The actions at IRP-9A and IRP-9B involved excavation and treatment of approximately 700 and 6,827 tons of TPH- and

PAH-contaminated soil, respectively. Human-health risk assessments were performed to evaluate the risks remaining after the removal actions at MWA-03, IRP-02, IRP-9A, and IRP-9B. These assessments showed that the postremoval condition at each site/AOC is protective of human health and the environment

Soil and groundwater at each of the sites and AOCs included in this OU-2 ROD/RAP were evaluated and were determined to require no further action due to site-specific releases. However, IRP-9, AS-08, MDA-04, and MDA-07 are located near large volatile organic compound plumes that originate from three OU-1 sites (IRP-3, IRP-12, and IRP-13S). Therefore, groundwater at IRP-9, AS-08, MDA-04, and MDA-07 is being addressed as part of the OU-1 remedial action. The need for groundwater cleanup at IRP-9 and AS-08, MDA-04, and MDA-07 will be evaluated in conjunction with remedial action at OU-1 and will be documented in a separate ROD/RAP. DTSC, RWQCB, and U.S. EPA agree with this approach.

No monitoring or deed restrictions are required to address chemicals present in soil and/or groundwater as a result of operations at the no action sites/AOCs. However, use restrictions may be required as part of potential remedial actions associated with OU-1. The need for such restrictions will be addressed in the proposed plan and ROD/RAP for OU-1.

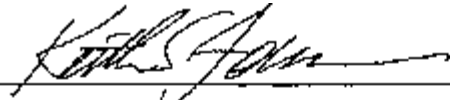
The property containing IRP-9, AS-08, MDA-04, and MDA-07 will not be transferred until the evaluation of OU-1 is complete and remedial action is finalized unless an early transfer is pursued. Institutional controls are anticipated and will be developed in conjunction with an Environmental Restriction Covenant and Agreement. When the Environmental Restriction Covenant and Agreement is finalized, it will be executed by the state and the federal government contemporaneously with the negotiation and execution of the conveyance of the property to the transferee(s) by deed, pursuant to the Defense Base Closure and Realignment Act of 1990, 10 *United States Code* Section 2687 note.


## **DECLARATION STATEMENT**

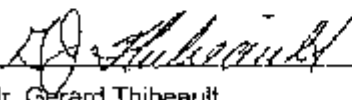
The DON has determined that no remedial action is necessary to ensure the protection of human health and the environment at IRP-2, IRP-9, and IRP-13E and AOCs AD-04, AS-06, AS-08, AST-02, AST-04, MDA-04, MDA-07, MMS-01, and MWA-03. This determination was based on extensive field investigations, laboratory analyses, and a thorough assessment of potential human-health risks at each location. Ecological risk assessments were not performed at these sites/AOCs because habitat surveys performed in October and November 1994 and February 1995 showed that there is no suitable wildlife habitat present (BNI 1996i,j). The results of the human-health risk assessments of these sites/AOCs show that the chemicals present at the sites/AOCs do not present an unacceptable risk to human health or the environment. Therefore, no remedial action is required at these sites/AOCs. Because hazardous substances are not present at concentrations above unacceptable levels, CERCLA Section-121 cleanup standards do not apply.

Declaration

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Signature:  Date: 9/21/00  
Mr. Keith Forman  
Base Realignment and Closure Environmental Coordinator  
Marine Corps Air Facility Tustin

Signature:  Date: 9/26/00  
Mr. John E. Scandura, Chief  
Southern California Operations  
Office of Military Facilities  
Department of Toxic Substances Control

Signature:  Date: 9/29/00  
Mr. Gerard Thibeault  
Executive Officer  
Regional Water Quality Control Board, Santa Ana Region



Date: 07/10/00

Declaration

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## **DECISION SUMMARY**

## Section 1

### **SITE NAME, LOCATION, AND DESCRIPTION**

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This Record of Decision (ROD)/Remedial Action Plan (RAP) presents the selected remedial action for Installation Restoration Program (IRP) Sites IRP-2, IRP-9, and IRP-13E and Areas of Concern (AOCs) AD-04, AS-06, AS-08, AST-02, AST-04, MDA-04, MDA-07, MMS-01, and MWA-03 Marine Corps Air Facility (MCAF) Tustin in Orange County, California. The document was developed in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended by the Superfund Amendments and Reauthorization Act (SARA) of 1986 and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). The decision for these sites/AOCs is based on the information contained in the Administrative Record. The Administrative Record index for the no action sites and AOCs is found in Attachment A.

#### **1.1 SITE NAME**

This decision document addresses three IRP sites and nine AOCs within Operable Unit (OU)-2 at MCAF Tustin.

The IRP sites are:

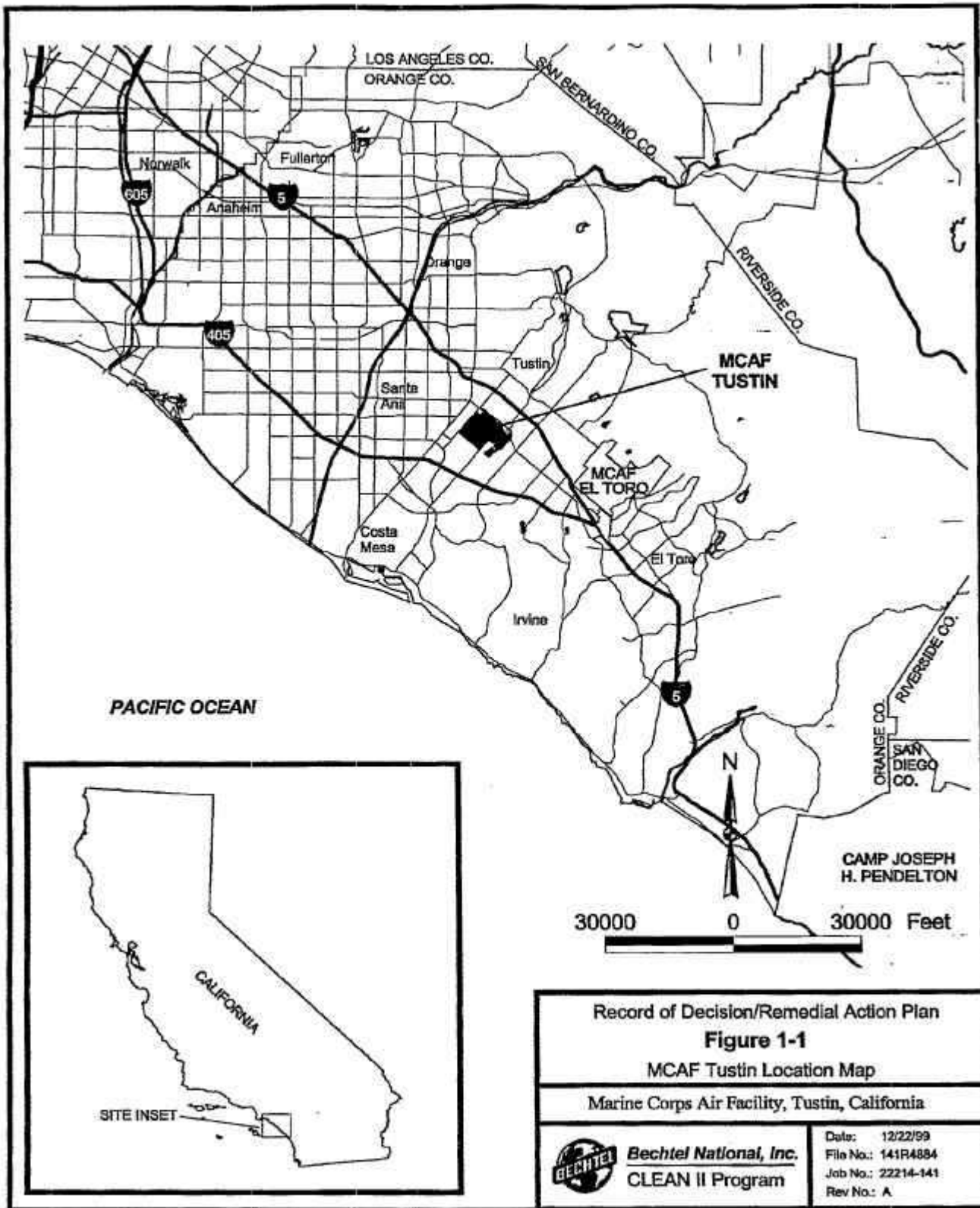
- IRP-2, Oil Disposal Area;
- IRP-9A/B Hangar No. 1 Line Shacks and Apron 1; and
- IRP-13E, East Drum Storage Area No. 3.

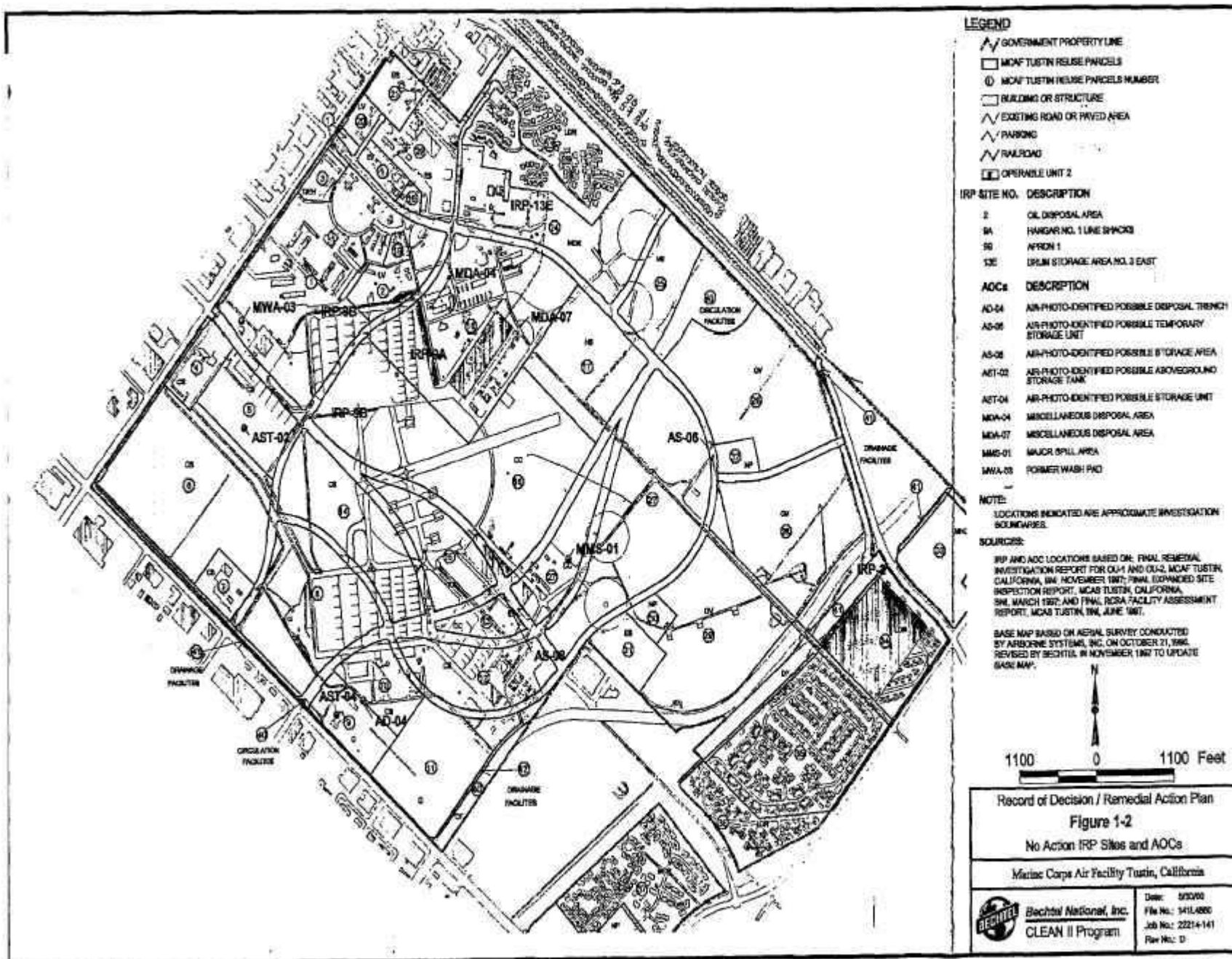
The AOCs are:

- AD-04, Air-Photo-Identified Possible Disposal Trench;
- AS-06, Air-Photo-Identified Possible Temporary Storage Unit;
- AS-08, Air-Photo-Identified Storage Area;
- AST-02, Air-Photo-Identified Possible Aboveground Storage Tank;
- AST-04, Air-Photo-Identified Storage Unit;
- MDA-04, Miscellaneous Disposal Area;
- MDA-07, Miscellaneous Disposal Area;
- MMS-01, Major Spill Area; and
- MWA-03, Former Wash Pad.

#### **1.2 SITE LOCATION**

MCAF Tustin is located in southern California near the center of Orange County, approximately 40 miles south of downtown Los Angeles and more than 100 miles north of the California-Mexico border (Figure 1-1). The three IRP sites and nine AOCs addressed in this ROD/RAP are located throughout MCAF Tustin as shown on Figure 1-2.





## Section 1 Site Name, Location, and Description

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During the past 20 years, urbanization has changed the vicinity from a predominantly agricultural area to a compact residential and industrial/manufacturing neighborhood. According to a 1990 Orange County census (Jacobs Engineering 1993a), approximately 260,000 persons reside within a 4-mile radius of MCAF Tustin.

### 1.3 SITE DESCRIPTION

During operations, the mission of MCAF Tustin was to maintain and operate facilities and to provide services and material to support operations of a Marine wing, or units thereof, and other activities and units designated by the commandant of the Marine Corps in conjunction with the Chief of Naval Operations.

To support the installation's mission, facility operations were expanded over the years to include more than 200 structures and various facilities, including a 3,000-foot-long runway, aircraft parking aprons, and numerous aircraft maintenance shops. Prior to closure, MCAF Tustin occupied 1,595 acres of land. Approximately 212 acres were used for base housing, and 1,383 acres were used for nonhousing purposes. All of the property is developed, except for 674 acres that are leased for commercial farming. The adjacent/surrounding land uses around MCAF Tustin include residential, commercial/business, industrial, and recreational. Table 1-1 describes each of the IRP sites/AOCs addressed in this ROD/RAP.

On 02 July 1999, operational closure of all military activities at MCAF Tustin was completed. The Marine Corps' mission at the facility was incorporated in Marine Corps Air Station (MCAS) Miramar operations in San Diego, California.

Date: 07/10/00

Section 1 Site Name, Location, and Description

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**Table 1-1  
Site Descriptions**

IRP Site/ AOC No.	IRP Site/AOC Name	Approximate Study Area (square feet)	Approximate Depth to Groundwater (feet bgs)	Site/AOC Description
2	Oil Disposal Area	1,114,800	15 – 34	IRP-2 is located in the northeast portion of MCAF Tustin. The site is bounded by Edinger Avenue to the north, Harvard Avenue to the east, Moffett Drive to the south, and Peters Canyon Channel to the west. The site is generally flat and contains 278 housing units and various recreational facilities such as tennis, handball, and basketball courts. Open grassy areas surround the residences and recreational facilities. Prior to the construction of housing in the early 1980s, IRP-2 was used as an oil disposal area.
9	Hangar No. 1 Line Shacks and Apron 1	116,000	20	IRP-9 is located in the central portion of MCAF Tustin adjacent to Aircraft Hangar No. 1. The site comprises two areas (IRP-9A and IRP-9B). IRP-9A consists of a grassy strip with flight line shacks (206 and 207) along the northern edge of aircraft Apron 1 and south of McCord Road. Fuel samples, hydraulic fluid, and oil from aircraft was reportedly spilled onto the ground surface surrounding the shacks and parking apron between 1971 and 1982. IRP-9B consists of the surface soil along two strips of the northern and western grass-covered margins of Apron 1. Studies indicate that both IRP-9A and IRP-9B received contamination from helicopter exhaust emissions that were deposited on the apron and subsequently washed off onto the surface soil through rain or washwater runoff.
13E	Drum Storage Area No. 3	38,870	15 – 20	IRP-13E is located in the northwest portion of MCAF Tustin between Buildings 41 and 66. The site includes a stained area where drums of chemicals were stored. Materials stored in this area included hydraulic fluid, diesel fuel, leaded gasoline, oil, paint stripper, battery acids, and solvents.
AD-04	Air-Photo-Identified Possible Disposal Trench	6,240	7 – 10	AD-04 is located near the southern boundary of MCAF Tustin near the Armed Services Reserve Center Garage. The AOC was identified by means of an aerial photograph dated 20 September 1965. This AOC was thought to be a possible disposal trench located about 90 feet north of the eastern end of the Armed Services Reserve Center Garage. The area is currently covered by vegetation and there is no visible evidence of the AOC.
AS-06	Air-Photo-Identified Possible Temporary Storage Area	4,800	8 – 10	AS-06 is located north of Moffett Drive in the northern portion of MCAF Tustin. The AOC was identified by means of an aerial photograph dated February 1953 and was visible in other aerial photographs until January 1975. This AOC was a possible hazardous material storage unit in view of its isolated location in an undeveloped area at the north end of Kilpatrick Road. During the RFA sampling visit, a concrete building foundation was discovered and delineated using a geophysical survey.
AS-08	Air-Photo-Identified Storage Area	12,000	>10	AS-08 is located approximately in the center of MCAF Tustin 130 feet south of the southeastern end of Hangar No. 2. The AOC was identified by means of an aerial photograph, dated 09 December 1976, and was visible in subsequent photographs taken prior to 1988. This AOC was an open storage area. AS-08 is currently covered with grass, and there is no surface expression of the former storage area. However, a concrete pad is located at the northern limit of the AOC.
AST-02	Air-Photo-Identified Possible Aboveground Storage Tank	300	4 – 6	AST-02 is located in the western corner of MCAF Tustin. AST-02 is the site of a possible former aboveground storage tank. By 1947, the possible tank had been replaced by a dark circular pit identified as a possible burn pit. Currently, the site is covered by a concrete aircraft parking apron (No. 4).
AST-04	Air-Photo-Identified Storage Unit	300	7 – 8	AST-4 is located at the southern boundary of MCAF Tustin near Barranca Parkway. The site was identified by an aerial photograph dated May 1966. This photograph showed a possible elevated tank approximately 10 feet by 30 feet in an area under development. The area is currently fenced and is occupied by the Armed Services Reserve Center.
MDA-04	Miscellaneous Disposal Area	20,000	8 – 12	MDA-04 is located in the northern portion of MCAF Tustin between McCord and Severyns Roads next to Calnan Street. The AOC consists of a paved area between Buildings 161, 173, and 253, where spills may have occurred.
MDA-07	Miscellaneous Disposal Area	50,625	>10	MDA-07 is located in the northern portion of MCAF Tustin on Moffett Road off the northeastern corner of Hangar No. 1. The site was reportedly used beginning in 1955 as a blimp and automobile wash area. Historical aerial photographs indicate that Copeland Street has been moved, and the area where runoff and wastes seeped into the ground is now covered by asphalt.
MMS-01	Major Spill Area	3,270	6 – 10	MMS-01 is located in the central portion of MCAF Tustin east of the main helicopter-landing apron. The AOC comprises of two noncontiguous areas resulting from a spill of JP-5 in December 1989. The fuel reportedly flowed across an asphalt parking lot in two directions: northward to an unpaved dirt area (MMS-01a) and southward into a storm drain (MMS-01b). MMS-01a is rectangular, approximately 36 feet by 72 feet, and is currently partially paved. MMS-01b consists of a concrete-bermed storm drain approximately 26 feet by 26 feet. There is currently no surface expression of the spill present at the AOC.
MWA-03	Former Wash Pad	640	11	MWA-03 is located at the western boundary of MCAF Tustin off Bumblebee Road. The AOC was a former wash pad at the Fuels Branch, operated by MWSS-374 for fueling equipment and inventory. The former wash area consisted of a 40- by 16-foot concrete pad sloped to drains discharging to an O/W separator. The integrity of the concrete pad was poor and cracks were present. The unit was decommissioned in 1993.

(table continued)



**Table 1-1** (continued)

Acronyms/Abbreviations:

AOC – area of concern

AST – aboveground storage tank

bgs – below ground surface

IRP – Installation Restoration Program

JP-5 – jet propellant – Grade 5

MCAF – Marine Corps Air Facility

MWSS – Marine Wing Support Squadron

O/W – oil/water

RFA – Resource Conservation and Recovery Act facility assessment

## Section 2

# SITE HISTORY AND INVESTIGATION ACTIVITIES

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## 2.1 SITE HISTORY

MCAF Tustin was initially established during World War II as a Navy lighter-than-air (LTA) facility to support air patrols off the southern California coast. The facility was commissioned in the fall of 1942, upon completion of the construction of two blimp hangars (currently national historic landmarks), and served as an LTA base until 1949, when it was decommissioned. The installation was then used as an outlying field for other military operations in the area, primarily those of MCAS El Toro.

In 1951, MCAF Tustin was reactivated to support the Korean Conflict and was used solely for helicopter operations. The installation was officially designated the Santa Ana MCAF. As the installation expanded its operations, the name was changed on 01 September 1969 to the MCAS (Helicopter[H]) Santa Ana. In 1978, the installation name was changed to MCAS (H) Tustin to reflect its annexation by the city of Tustin. In 1986, the installation was renamed MCAS Tustin, and in October 1997, the installation name was changed to MCAF Tustin.

MCAF Tustin was initially realigned in the Base Realignment and Closure (BRAC) II list (1991); further realignment and complete closure was ordered for the base under the BRAC III list (1993). To facilitate the closure and environmental restoration processes, the Department of the Navy (DON) organized a BRAC Cleanup Team (BCT) in 1993. The BCT is composed of representatives of the DON, United States Environmental Protection Agency (U.S. EPA), and the California Environmental Protection Agency (Cal-EPA) Department of Toxic Substances Control (DTSC), with support from the Santa Ana Regional Water Quality Control Board (RWQCB). The BCT has been collectively managing and coordinating cleanup and closure activities at MCAF Tustin.

MCAF Tustin was closed on 02 July 1999 in accordance with the Base Closure and Realignment Act. A Federal Facility Site Remediation Agreement between the DON and DTSC was signed in August 1999. This legal agreement defines the DON's corrective action and response action obligations under the Resource Conservation and Recovery Act (RCRA) and under CERCLA for the 16 IRP sites and 287 AOCs that have been identified at MCAF Tustin. The Site Management Plan (BN1 2000b,c) establishes schedules and deadlines for remaining environmental restoration activities and reports.

## 2.2 INVESTIGATION ACTIVITIES

There are no enforcement activities related to the OU-2 IRP sites/AOCs. Environmental investigation and remediation activities associated with OU-2 are implemented under an installationwide environmental program. The purpose of this program is to identify, investigate, assess, characterize, and clean up or control releases of hazardous substances, as well as to cost-effectively reduce the risk to human health and the environment from past waste disposal operations and hazardous material spills at Navy/Marine Corps facilities. The program is administered in accordance with:

- CERCLA, as amended by SARA, and the Community Environmental Response Facilitation Act;
- RCRA;
- National Environmental Policy Act; and
- California Environmental Quality Act.

CERCLA is generally applied to inactive sites where a hazardous substance is known or suspected to have been stored, placed, disposed of, or deposited. RCRA is generally applied to active areas involving solid and hazardous waste management. RCRA may also be applied by regulatory agencies to require remediation for past improper hazardous waste disposal practices and spills that resulted in a threat to the environment or human health. CERCLA sites and RCRA AOCs are addressed through slightly different processes, although it is not uncommon for sites/AOCs to be moved from one program to another as an environmental investigation progresses.

IRP-2, IRP-9, and IRP-13E were investigated under CERCLA. AOCs AD-04, AS-06, AS-08, AST-02, AST-04, MDA-04, MDA-07, MMS-01, and MWA-03 were originally investigated under RCRA. However, these AOCs were transferred to the CERCLA process following the RCRA facility assessment (RFA). The AOCs were transferred because the evaluation of the nature and extent of contamination, fate and transport analysis, and preliminary risk assessment indicated that groundwater beneath the AOCs had been impacted or could be impacted in the future by contaminant concentrations above regulatory or risk-based levels. Soil and groundwater data collected at these AOCs during the RFA were subsequently evaluated under a basewide groundwater study performed for the OU- 1 /OU-2 remedial investigation RI (BNI 1997a).

### **2.2.1 CERCLA Investigation Activities**

In 1983 and 1984, the DON performed an initial assessment study (IAS) to locate potentially contaminated sites at MCAF Tustin. The IAS report identified 14 potentially contaminated sites (IRP-1 through IRP-14 [Brown and Caldwell 1985]). Potentially contaminated sites were identified based on records searches and employee interviews. The report recommended sampling locations and analytical parameters to confirm the suspected contamination at the sites.

Following completion of the IAS, the Marine Corps contracted for a review of the IAS to produce the Site Inspection Plan of Action (SIPOA) (JMM 1988a). The plan recommended nine IRP sites, including IRP-2, IRP-9, and IRP-13, for study and amended the site sampling plans proposed in the IAS Report.

Site inspections (SIs) were conducted by JMM from 1987 to 1988 (JMM 1988b) and by Jacobs Engineering and IT Corporation in 1992 (Jacobs Engineering 1992a). Based on the results of the SIs, the IRP sites were further evaluated through an RI and/or an expanded site inspection (ESI). The OU-1/OU-2 RI addressed basewide groundwater and five IRP sites, including IRP-13. The RI consisted of a field investigation followed by an

## Section 2 Site History and Investigation Activities

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evaluation of the nature and extent of contamination, a fate and transport analysis, and a baseline risk assessment. In addition, the RI included a basewide groundwater study to evaluate the impact of chemicals of potential concern (COPCs) present in soil and groundwater at several sites and AOCs, including all AOCs addressed in this ROD/RAP. The groundwater study is discussed further in Sections 5 and 7.

The ESI addressed eight IRP sites/AOCs including IRP-2 and IRP-9. These IRP sites were not investigated under the RI because previous investigations did not conclude that they present a significant threat to human health and/or the environment. Therefore, they did not warrant an investigation of the magnitude of an RI. However, to facilitate the closure of MCAF Tustin in 1999, the ESI was conducted more in accordance with the RI to ensure that sufficient information was collected to allow each site to be recommended (to the BCT) for no farther action, removal action, or remedial action.

The ESI consisted of a field investigation followed by an evaluation of the nature and extent of contamination, a fate and transport analysis, a baseline risk assessment for soil and groundwater, and a screening risk assessment to evaluate risks associated with potential future groundwater contamination. Based on the results of the risk assessments and the presence of or potential for COPC contamination in groundwater, non-time-critical removal actions were recommended for soil at IRP-2 and IRP-9. Groundwater at IRP-2 was recommended for further evaluation in the OU-1/OU-2 RI(BNI 1997a). No further action was recommended for groundwater at IRP-9.

Table 2-1 summarizes CERCLA investigation activities at MCAF Tustin.

### 2.2.2 RCRA Investigation Activities

Potential RCRA AOCs were identified through a preliminary review (PR) (Jacobs Engineering 1991). The PR, completed in June 1991, involved evaluating existing information and interviewing personnel familiar with the facility or AOCs. As a result of the PR, MCAF Tustin established a comprehensive environmental database of AOCs that is regularly updated.

From 1991 to 1996, several visual site inspections (VSIs) of the AOCs were conducted to obtain additional evidence of a release and to classify AOCs as requiring or not requiring cleanup (Table 1-2). The VSIs included visual inspections and interviews with MCAF Tustin personnel.

In 1992, an aerial photograph review was performed by Jacobs Engineering (Jacobs Engineering 1992b). The review was designed to supplement other site-specific historical information and identify additional AOCs and solid waste management units (SWMUs) not identified in the VSIs, if any.

**Table 2-1**  
**Summary of CERCLA Investigation Activities**

Date	Investigation/Activity	Objective	Summary of Findings
1983–1984	Initial assessment study	Identify and assess sites posing a potential threat to human health or to the environment due to contamination from past hazardous materials operations.	Identified all sites studied as potential contaminated. Recommended IRP-2 for a confirmation study and a remedial measure for IRP-8 (Brown and Caldwell 1985).
1987–1988	Former Fuel Farm investigation	Identify COPCs present in groundwater at IRP-16.	Three monitoring wells were installed and sampled. Several VOCs, including TCA, DCA, and toluene, were reported in groundwater (JMM 1988b).
1990–1993	Site inspection	Evaluate nine of the sites (IRP-2, IRP-3, IRP-5, IRP-7, IRP-8, IRP-9, IRP-12, IRP-13, and IRP-15) identified during the initial assessment study	Further evaluation of IRP-2 and IRP-8 was recommended. An RI/FS was recommended for IRP-3, IRP-5, IRP-7, IRP-9, IRP-12, and IRP-13. No further action was recommended at IRP-15. Removal actions were not recommended for any sites (Jacobs Engineering 1993b).
1992	Former Fuel Farm investigation	Identify COPCs present in soil and groundwater at IRP-16	No VOCs were reported in groundwater. High concentrations of TRPH were reported in soil (Jacobs Engineering 1992a).
1994–1995	Expanded site characterization	Determine background levels of COPCs in groundwater and establish baseline geochemistry of MCAF Tustin.	Installed more than 20 wells and drilled more than 30 HydroPunch® borings to determine baseline geochemistry (ANL 1994; 1995a,b).
1994–1995	Expanded site inspection	Evaluate nine IRP/AOC sites (IRP-2, IRP-6, IRP-8, IRP-9, IRP-11, IRP-15, MMS-03, MMS-04, and MMS-05). Investigation consisted of soil and groundwater sampling, fate and transport analysis, baseline risk assessment, and screening risk assessment associated with future impacts on groundwater (due to leaching of COPCs in soil).	No further action was recommended for soil at IRP-8, IRP-11, IRP-15, MMS-03, MMS-04, and MMS-05. Non-time-critical removal action was recommended for soil at IRP-2 and IRP-9. Further evaluation was recommended for soil at IRP-6. No further action was recommended for groundwater at IRP-9, IRP-15, and MMS-03. IRP-2, IRP-6, IRP-8,

(table continues)

## Section 2 Site History and Investigation Activities

Table 2-1 (continued)

Date	Investigation/Activity	Objective	Summary of Findings
1995–1997	OU-1/OU-2 remedial investigation	Evaluate seven sites (IRP-3, IRP-5, IRP-12, IRP-13E, IRP-13W, IRP-13S, and IRP-16). Also performed basewide groundwater study to evaluate impact of sources of contamination at a total of 29 areas of potential concern identified under the RI, ESI, and RFA programs.	<p>IRP-11 and MMS-04 and MMS-05 were recommended for further evaluation in the RI basewide groundwater program, based on the risk assessment and evaluation of COPCs in groundwater (BNI 1996a).</p> <p>No further action was recommended for 23 of the 29 areas of potential concern (IRP-2, IRP-5, IRP-6, IRP-8, IRP-11, IRP-13E, IRP-13W, and IRP-16 and AOCs AD-04, AS-06, AS-08, AST-02, AST-04, DSS-01, DSS-02, MDA-02, MDA-04, MDA-07, MMS-01, MWA-03, MMS-04, MMS-05, and ST-67). No further action was also recommended for soil at these 23 sites in the ESI, RFA, or RI report. (Note: The no further action recommendation for IRP-13W was made subsequent to a non-time-critical removal action.) An FS was recommended for IRP-3 (which includes TOW-X3 and -X4), IRP-12, and IRP-13S. Further action was recommended for IRP-1. Two of these sites and nine of these AOCs are the subject of this ROD/RAP (BNI 1997a).</p>
1996	OU-3 RI/FS	Assess nature and extent of contamination at IRP-1 and evaluate remedial action.	Recommended remedial action is containment of waste left in place using existing cover and a containment wall for contaminated groundwater (BNI 1996b,c).
1996	Removal action at IRP-16	Excavate and treat petroleum-contaminated soil under a petroleum corrective action.	Approximately 15,000 tons of soil was excavated, of which 6,000 tons of contaminated soil was treated and the site backfilled and restored. Activities were completed in August 1996 (OHM 1997).
1997	Non-time-critical removal action at IRP-2	Excavate and treat PAH-contaminated soil.	Approximately 569 tons of PAH-contaminated soil was excavated and treated. Activities were completed in June 1997 (BNI 1996; OHM 1998a).

(table continues)

**Table 2-1** (continued)

<b>Date</b>	<b>Investigation/Activity</b>	<b>Objective</b>	<b>Summary of Findings</b>
1997–1999	Non-time-critical removal action at IRP-9A and IRP-9B	Excavate and treat PAH-contaminated soil.	Approximately 701 tons and 6,837 tons of soil were excavated and treated from IRP-9A and IRP-9B, respectively, for a total of 7,538 tons. Activities were completed at IRP-9A in September 1997 and IRP-9B in December 1998 (BNI 1996d; OHM 2000a).
1997	Non-time critical removal action at IRP-13W	Excavate and treat TPH- and PAH-contaminated soil.	Approximately 4,000 tons of soil were removed, and site restoration activities (paving and fencing) were performed as part of a non-time-critical removal action at IRP-13W. Activities were completed in November 1997.
1999	OU-1 FS	Evaluate remedial alternatives for IRP-3, IRP-12, and IRP-13S.	Six remedial alternatives were evaluated, including no action, natural attenuation, hydraulic containment, groundwater extraction, iron-wall, and vacuum-enhanced groundwater extraction (BNI 1996b).
1999	BCT meeting 23 September 1999.	Modify recommended action for six sites and six AOCs.	Recommended a focused FS for IRP-5, IRP-6, IRP-8, IRP-11, IRP-13W, and IRP-16 and AOCs DSS-01, DDS-02, MDA-02, MMS-04, MMS-05, and ST-67 due to the presence of contaminants in shallow groundwater at concentrations exceeding regulatory limits. These sites/AOCs show compose OU-4.

(table continues)

Section 2 Site History and Investigation Activities

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**Table 2-1** (continued)

## Acronyms/Abbreviations:

ANL – Argonne National Laboratory  
AOC – area of concern  
BCT – Base Realignment and Closure Cleanup Team  
BNI – Bechtel National, Inc.  
CERCLA – Comprehensive Environmental Response, Compensation, and Liability Act  
COPC – chemical of potential concern  
DCA – dichloroethane  
ESI – expanded site inspection  
FS – feasibility study  
IRP – Installation Restoration Program  
JMM – James M. Montgomery Engineers, Inc.  
MCAF – Marine Corps Air Facility  
OHM – OHM Remediation Services Corp.  
OU – operable unit  
PAH – polynuclear aromatic hydrocarbon  
RAP – remedial action plan  
RFA – Resource Conservation and Recovery Act (RCRA) facility assessment  
RI – remedial investigation  
ROD – record of decision  
TCA – trichloroethane  
TPH – total petroleum hydrocarbons  
TRPH – total recoverable petroleum hydrocarbons  
VOC – volatile organic compound



Most AOCs at MCAF Tustin were classified as not requiring cleanup using information gathered in the PR and VSI. However, 50 AOCs were investigated further in 1995–1996 during a sampling visit (SV). The purpose of the SV was to fill data gaps that remained upon completion of the PR and VSI by collecting environmental samples and additional field data.

Data collected during the PR, VSI, and SV were summarized in a final RFA Report (BNI 1997b). Based on the screening human-health risk assessment performed in the RFA and the presence of or potential for COPC contamination in groundwater, AOCs AD-04, AS-06, AS-08, AST-02, AST-04, MDA-04, MDA-07, MMS-01, and MWA-03 were recommended for further evaluation in the OU-1/OU-2 RI (BNI-1997a).

Table 2-2 summarizes RCRA investigation activities at MCAF Tustin.

## Section 2 Site History and Investigation Activities

**Table 2-2**  
**Summary of RCRA Investigation Activities**

Date	Investigation/Activity	Objective	Summary of Findings
1991	PR	Conduct a records search and collect data to identify AOCs that had exhibited releases or has the potential for release of hazardous constituents to the environment.	Established a comprehensive environmental database that included 246 identified AOCs (Jacobs Engineering 1991).
1992	VSI	Identify additional potential AOCs not identified during the PR and conduct a VSI and interviews about all potential AOCs. Recommend selected AOCs SV.	Of the 186 sites visually inspected, 58 were recommended for an SV and 128 were recommended for no SV (Jacobs Engineering 1992a).
1992	Aerial photograph review	Conduct an aerial photograph review to supplement other site-specific historical information and identify additional AOCs and SWMUs, if any, not identified in the VSI.	Thirty-five additional AOC were identified and recommended for visual inspection (Jacobs Engineering 1992b).
1992	VSI addendum	Conduct a VSI for additional areas identified during the aerial photograph review.	Of the 35 areas visually inspected, 13 were recommended for an SV and 22 were recommended for no SV (Jacobs Engineering 1992c).
1994-1995	ESI (CERCLA activity that included RCRA AOCs)	Evaluate nine IRP/AOC sites (IRP-2, IRP-6, IRP-8, IRP-9, IRP-11, IRP-15, MMS-03, MMS-04, and MMS-05).	Refer to Table 2-1
1995-1996	SV	Conduct field sampling for 50 AOCs.	Field sampling was conducted in 1995-1996. Sampling consisted of soil sampling (at all Aocs) and groundwater sampling at selected AOCs. Results are provided in the final RFA Report (BNI 1997b).
1995	Supplemental VSI	Inspect three additional AOCs identified during the ongoing base closure and interview facility personal to collect evidence of a release.	Recommended no SV for three AOCs (BNI 1996e).
1995	BCT meetings, 31 January and 01 February 1995	Disposition of eight potential AOCs identified during preparation of the 1995 BCP.	BCT recommended seven AOCs for no further action; one AOC was recommended for an SV (MCAS Tustin BCT 1995)

(table continues)

Table 2-2 (continued)

Date	Investigation/Activity	Objective	Summary of Findings (Reference)
1996	Second addendum to revised PR/draft VSI	Address 38 potential AOCs identified as part of continuing base closure activities.	Most of these sites were found to be identifiable with or totally within the boundaries of existing AOCs. Fourteen AOCs were recommended for further investigation in an SV (MCAS Tustin 1996).
1996	BCT meeting, 03 September 1996	Disposition of eight additional AOCs identified during preparation of the 1996 BCP.	BCT recommended four AOCs for no further action; four AOCs were recommended for an SV (MCAS Tustin BCT 1995).
1996	VSI of Osumi Corporation Yard	Conduct a visual inspection and interview lessee of the Osumi Corporation Yard to assess whether there were any release of pesticides, petroleum hydrocarbons, or spent solvents.	Identified a UST that requires future removal when it becomes inactive under the UST program. No releases were observed or identified during the inspection, and an SV was not recommended for this VOC. The VSI was completed in September 1996 (BNI 1996f).
1997	RCRA facility assessment	Present results of the SV for 50 AOCs. Summarize recommended action for 208 AOCs not included in the SV.	AOCs AD-04, AS-06, AS-08, AST-02, AST-04, DSS-02, MDA-02, MDA-04, MDA-07, MMS-01, MWA-03, and ST-67 were recommended for further evaluation in the OU-1/OU-02 RI.
1997	RCRA action for AOC MWA-03	Conduct RCRA removal action at MWA-03 as recommended in the final RFA Report.	Approximately 290 tons of soil was removed and treated on-site to remove PCBs, PAH, and VOCs. Removal action was completed in December 1997 (OHM 1998b).
1997	RI for OU-1 and OU-2 (CERCLA activity that included evaluation of RCRA AOC data)	Perform a basewide groundwater study to evaluate COPCs in soil and groundwater at OU-1 and OU-2 IRP sites and selected AOCs.	Refer to Table 2-1
1999	HydroPunch® investigation at MDA-02	Support no further action recommended for groundwater.	Recommended that further evaluation of groundwater is unnecessary and MDA-02 should remain an NFA site.

(table continues)

## Section 2 Site History and Investigation Activities

Table 2-2 (continued)

Date	Investigation/Activity	Objective	Summary of Findings
1999	BCT meeting 23 September 1999	Modify recommended action for six sites and six AOCs.	Recommended a focused FS for IRP-5, IRP-6, IRP-8, IRP-11, IRP- 13W, and IRP-16 and AOCs DSS- 01, DSS-02, MDA-02, MMS-04, MMS-05, and ST-67 due to the presence of contaminants in shallow groundwater at concentrations exceeding regulatory limits. These sites/AOCs now comprise OU-4.

## Acronyms/Abbreviations:

AOC – area of concern  
 BCP – Base Realignment and Closure (BRAC) Cleanup Plan  
 BCT – BRAC Cleanup Team  
 BNI – Bechtel National, Inc.  
 CERCLA – Comprehensive Environmental Response, Compensation, and Liability Act  
 COPC – chemical of potential concern  
 ESI – expanded site inspection  
 FS – feasibility study  
 IRP – Installation Restoration Program  
 MCAS – Marine Corps Air Station  
 NFA – no further action  
 OHM – OHM Remediation Services Corp.  
 OU – operable unit  
 PAH – polynuclear aromatic hydrocarbon  
 PCB – polychlorinated biphenyl  
 PR – preliminary review  
 RCRA – Resource Conservation and Recovery Act  
 RFA – RCRA facility assessment  
 RI – remedial investigation  
 SV – sampling visit  
 SWMU – solid waste management unit  
 UST – underground storage tank  
 VOC – volatile organic compound  
 VSI – visual site inspection

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## Section 3

### HIGHLIGHTS OF COMMUNITY PARTICIPATION

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A Community Relations Plan (BNI 1996f) was developed to document concerns identified during community interviews and to provide a description of the community relations activities planned in response to information received from the community. The initial plan was prepared in 1991 and revised in 1993 and 1995. The revisions incorporated the most recent assessment of community issues, concerns, and informational needs related to the ongoing environmental investigation and remediation program at MCAF Tustin.

The community relations program includes specific activities for obtaining community input and keeping the community informed. These activities include conducting interviews, holding public meetings, issuing fact sheets to provide updates on current investigations and remediation activities, maintaining an information repository where the public can access technical documents and program information, disseminating information to the local and regional media, and making presentations to local community groups.

Community members and local governmental agencies have also participated in planning for the reuse of MCAF Tustin through development of the MCAS Tustin Specific Plan/Reuse Plan (SP/RP) and its update (The Planning Center 1998).

#### 3.1 RESTORATION ADVISORY BOARD

In 1994, individuals from local communities began to play an increasingly significant role in the environmental restoration process with the establishment of the Restoration Advisory Board (RAB). Original membership in the board, which was solicited by the Marine Corps/Navy through newspaper notices, included business and homeowners' representatives, residents, local elected officials, and regulatory agency staff.

Currently, the RAB is composed of 21 members. RAB meetings occur bimonthly, are open to the public, and include representatives from the Marine Corps/Navy, city and county offices, and regulatory agencies.

Meetings are held in the evenings after normal working hours at Building 523 at MCAF Tustin, at the city of Tustin City Hall, Clifton Miller Center, or at the Tustin Senior Center, 200 South C Street, in downtown Tustin. Several board members from the RAB have taken information from the regular meetings back to the groups they represent, thus contributing to an increased awareness of the IRP process. In addition, members of the public can contact RAB members to obtain information or express concerns to be discussed at subsequent RAB meetings.

Copies of the RAB meeting minutes are available at the MCAF Tustin Information Repository, located at the Main Library-Government Publications Department, at the University of California, Irvine (UCI). RAB meeting minutes are also located on the Navy's Southwest Division Naval Facilities Engineering Command (SWDIV) Environmental Web Page, which can be found at the following Internet address:

*<http://www.efdswnavfac.navy.mil/pages/envrnmntl.htm>*

### **3.2 PUBLIC MAILINGS**

Public mailings, including information updates, fact sheets, and proposed plans, have been used to ensure an even broader dissemination of information throughout the local community. The first information update announcing the IRP process at MCAF Tustin was delivered to residents surrounding MCAF Tustin and mailed to city, state, and federal officials; agencies; local groups; and individuals identified in the Community Relations Plan in February 1993. Subsequent updates and fact sheets were mailed to the community as significant remediation milestones were reached (Table 3-1). These publications have included information concerning the status of site investigations, the upcoming remedy selection process, ways the public can participate in the investigation and remediation of MCAF Tustin, and the availability of the MCAF Tustin Administrative Record.

Proposed plans or proposed plans/draft RAPs are brief summaries of remedial alternatives proposed for a site or group of sites. The plan describes each alternative, evaluates each alternative against nine criteria, and identifies the preferred alternative. This document is issued to the public just prior to the beginning of a public comment period to provide information and solicit public input on the remedial options that underwent detailed evaluation. Once the public comment period closes, the comments are compiled, reviewed by the BCT, and used to refine the remedial action. The final decision and response to comments (known as a "responsiveness summary") are presented in the ROD/RAP.

The updates, fact sheets, and proposed plans/draft RAPs have been mailed to approximately 500 households, businesses, public officials, and agencies in an effort to reach as many community members as possible.

### **3.3 COMMUNITY PARTICIPATION FOR NO ACTION SITES**

The final RI Report for OU-1 and OU-2 was released to the public in November 1997. The Proposed Plan/draft RAP for the OU-2 sites was issued in January 2000. These documents were made available to the public at the information repository maintained at the Main Library-Government Publications Department at UCI. The notice of availability for these documents was published in the *Tustin Weekly*, the *Orange County Register*, and the *Los Angeles Times (Orange County Edition)* approximately 1 week prior to the public meeting. The notices also announced the availability of the administrative record file for review. Complete administrative record files are available at the SWDIV office in San Diego and at MCAF Tustin. A partial record file is available for review at the information repository. The information repository also contains a complete index of the administrative record file, along with information about how to access the complete file at MCAF Tustin. The Proposed Plan/draft RAP was also distributed to the MCAF community relations mailing list.

## Section 2 Site History and Investigation Activities

**Table 3-1**  
**Summary of MCAF Tustin Updates, Fact Sheets, and Proposed Plans**

Fact Sheet Number	Date	Title
—	02/93	The Environmental Cleanup of MCAS Tustin
2	06/94	New Environmental Committee to Hold Workshop
3	02/95	Soil Treatment Process Selected for cleanup of former Fuel Farm Area
4	12/95	It's Official: Excavation and Treatment of Contaminated Soil Is Under Way
5	01/96	Fast-Track Studies Focus on Reducing Cost and Schedule at MCAS Tustin
6	10/96	Proposed Plan for Landfill Trenches and Crash Crew Burn Pits
7	04/97	Cleanup Activities Complete at Former Fuel Tank Farm
8	10/97	Groundwater Contamination and Cleanup - An Overview
9	01/98	Identifying and selecting Technologies and Alternatives for Groundwater Treatment
—	03/99	Recent Development At Moffet Trenches and Crash Crew Burn Pits
—	01/00	Proposed Plan/Draft Remedial Action Plan for No Further Action at Three IRP Sites and Nine AOCs

## Acronyms/Abbreviations:

AOC – area of concern  
 IRP – Installation Restoration Program  
 MCAF – Marine Corps Air Facility  
 MCAS – Marine Corps Air Station

A public comment period was held from 02 to 31 January 2000. In addition, a public meeting was held on 13 January 2000. This meeting was announced in the *Tustin Weekly*, the *Orange County Register*, and *Los Angeles Times* (Orange County Edition) approximately 1 week prior to the public meeting. At this meeting, the BRAC Environmental Coordinator made a presentation about the IRP site/AOC conditions and the remedial alternatives under consideration. Representatives from the DON, MCAF Tustin, and environmental regulatory agencies were available to answer questions. A court reporter prepared a transcript of the meeting and was also available to record oral public comments. Responses to written comments received during the public comment period are included in the Responsiveness Summary, which is part of this ROD/RAP.



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## Section 4

### SCOPE AND ROLE OF OPERABLE UNIT

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There are four OUs at MCAF Tustin. Each OU will be addressed in a separate ROD/RAP. OU-1 addresses groundwater at IRP-3, IRP-12, and IRP-13S. OU-2, addressed in this ROD/RAP, comprises IRP-2, IRP-9(A/B), and IRP-13E and AOCs AD-04, AS-06, AS-08, AST-02, AST-04, MDA-04, MDA-07, MMS-01, and MWA-03. OU-3 has been defined to address all contaminated media at the Moffett Trenches and Crash Crew Burn Pits Site (IRP-1). OU-4 comprises IRP-5, IRP-6, IRP-8, IRP-11, IRP-13W, and IRP-16 and AOCs DSS-01, DSS-02, MDA-02, MMS-04, MMS-05, and ST-67. OU-4 sites were initially recommended for no further action in the OU-1/OU-2 RI. This recommendation was later modified due to the presence of contaminants in groundwater at concentrations exceeding regulatory limits.

In addition to the sites included within the four OUs, there are three IRP sites that are not included in a designated OU:

- IRP-4 was designated for an RFA SV. Based on the results of the SV, this site was redesignated by the BCT as AOC MMS-03. AOC MMS-03 received a no further action determination by the BCT on 24 July 1997 (MCAS Tustin BCT 1997).
- IRP-7 was investigated in the RI. Based on the results of this investigation, the site was transferred out of the CERCLA process because of a petroleum exclusion. Contamination at this site is now being addressed under the Santa Ana RWQCB petroleum corrective action.
- IRP-15 was a purported disposal site for creosote-treated timber dating from 1942. Site inspections and document reviews failed to confirm the existence of this site, and it was eliminated from further study prior to the ESI. During a 20 March 1996 meeting of the BCT, it was agreed that IRP-15 required no further action, and a closure letter was signed by the members of the BCT. A copy of the closure letter is included in Appendix A of the ESI Report (BN1 1996a).

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## Section 5

### SITE CHARACTERISTICS

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This section summarizes the regional characteristics of MCAF Tustin and results of the ESI, RFA, and RI investigations at each OU-2 site and AOC. This section also summarizes the results of non-time-critical removal actions at IRP-2 and IRP-9 and a RCRA action to remove soil at MWA-03. Each subsection below provides a brief history of the source of contamination at the IRP site or AOC, summarizes the sampling performed, and presents tables summarizing site-specific sampling results. Section 5 concludes with a discussion of current and potential future pathways of exposure to COPCs and a summary of the basewide groundwater study conducted in the RI. Section 6 presents the current and proposed future land uses and groundwater and surface water uses. Section 7 discusses the results of the risk assessments that were performed at each site/AOC and the follow-on evaluations conducted during the RI. A complete discussion of sampling locations and methodologies, compounds detected at each site, nature and extent of contamination, fate and transport modeling, and evaluation of human and ecological risks appears in the ESI, RFA, and RI reports referenced above.

The interpretation of the nature and extent of contamination at the OU-2 IRP sites/AOCs is based on data from the final ESI Report (BNI 1996a), the final RFA Report (BNI 1997b), and the final RI Report for OU-1 and OU-2 (BNI 1997a), the draft Closure Report for IRP-2 (OHM 1998a), the draft No Further Action Report for MWA-03 (OHM 1998b), the final PAH Apron Study Report (BNI 1998), and draft Closure Report for IRP-9 (OHM 2000a). The ESI, RFA, and RI reports include the results of field investigations, aerial photograph reviews, fate and transport modeling, and interviews with MCAF Tustin personnel. The remaining reports include the results of investigations and activities performed subsequent to the ESI, RFA, and RI.

#### 5.1 REGIONAL CHARACTERISTICS

MCAF Tustin lies at the eastern edge of a broad coastal plain (an essentially planar, alluviated flatland) that is bounded on the east-northeast by the gentle slopes of Lomas de Santiago (along the foothills of the Santa Ana Mountains) and on the south by the San Joaquin Hills. The coastal plain slopes gently southwestward to the Pacific Ocean. The installation is essentially flat and has a mean elevation of approximately 54 feet above mean sea level (MSL). Ground elevation reaches a maximum of about 75 feet above MSL at the northern corner of the installation and gradually slopes to about 45 feet above MSL at the southern portion. The geology, hydrogeology, and surface hydrogeology are described below.

##### 5.1.1 Geology and Hydrogeology

In the vicinity of MCAF Tustin, the coastal plane overlies are approximately 1,300 feet of unconsolidated sediments. Sediments from ground surface to depths ranging from approximately 90 feet to 150 feet below ground surface (bgs) consist of massive silt, clayey silt, clay, and silty clay deposits with laterally discontinuous lenses of sand and gravel. Collectively, the permeable water-bearing sediments of the floodplain and fluvial deposits within the upper 90 to 150 feet bgs are referred to as the “shallow aquifer.” Below 150 feet bgs, these sediments are referred to as the “regional aquifer” (Figure 5-1).

## Section 5 Site Characteristics

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Three water-bearing zones (WBZs) constitute the shallow aquifer beneath MCAF Tustin. These WBZs are identified by the depth intervals at which they occur and may or may not contain permeable sediments. The first WBZ occurs from approximately 5 to 30 feet bgs (Figure 5-2). The second WBZ occurs from approximately 30 to 60 feet bgs, and the third WBZ occurs from approximately 60 feet bgs to between 90 and 120 feet bgs. The boundary between WBZs varies from location to location, reflecting the lateral and vertical discontinuity of the relatively permeable sediments within each depth range.

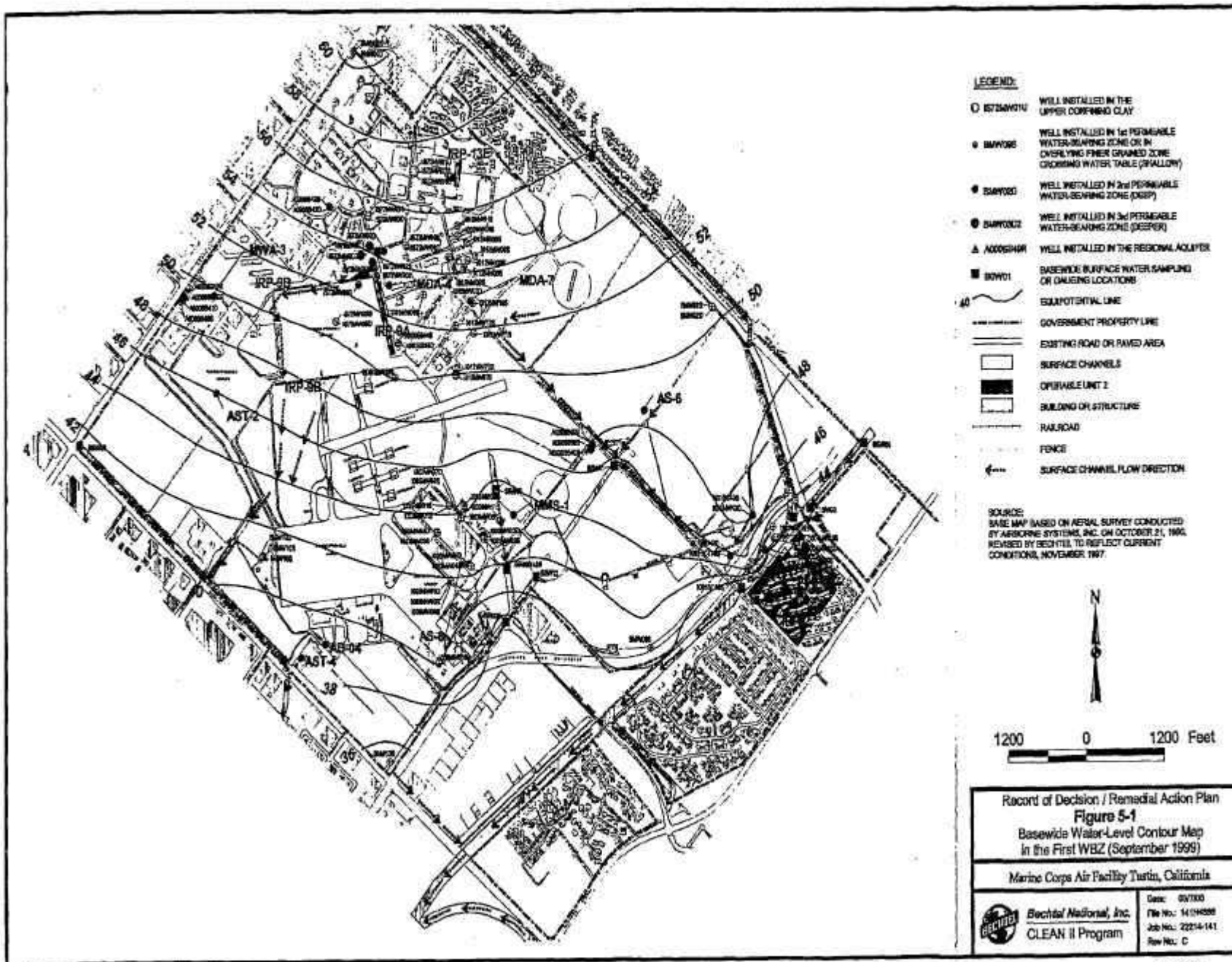
The fluvial deposits within the first WBZ are almost always saturated. The relatively fine-grained floodplain deposits within the first WBZ can be saturated, and at some locations, groundwater first occurs within the fine-grained deposits. Lateral decreases in the permeability of the floodplain deposits can result in semiconfined groundwater conditions within the first WBZ. Groundwater within the first WBZ contains total dissolved solids (TDS) at high levels, typically greater than 3,000 parts per million. Field data suggest that the first WBZ and second WBZ are hydraulically interconnected. However, TDS concentrations in the second WBZ are typically lower than in the first WBZ. Groundwater within the second and third WBZs generally occurs under semiconfined conditions. Field data also suggest that the third WBZ is usually separated hydraulically from the second WBZ and appears to be a transitional zone between the shallow aquifer and the underlying regional aquifer.

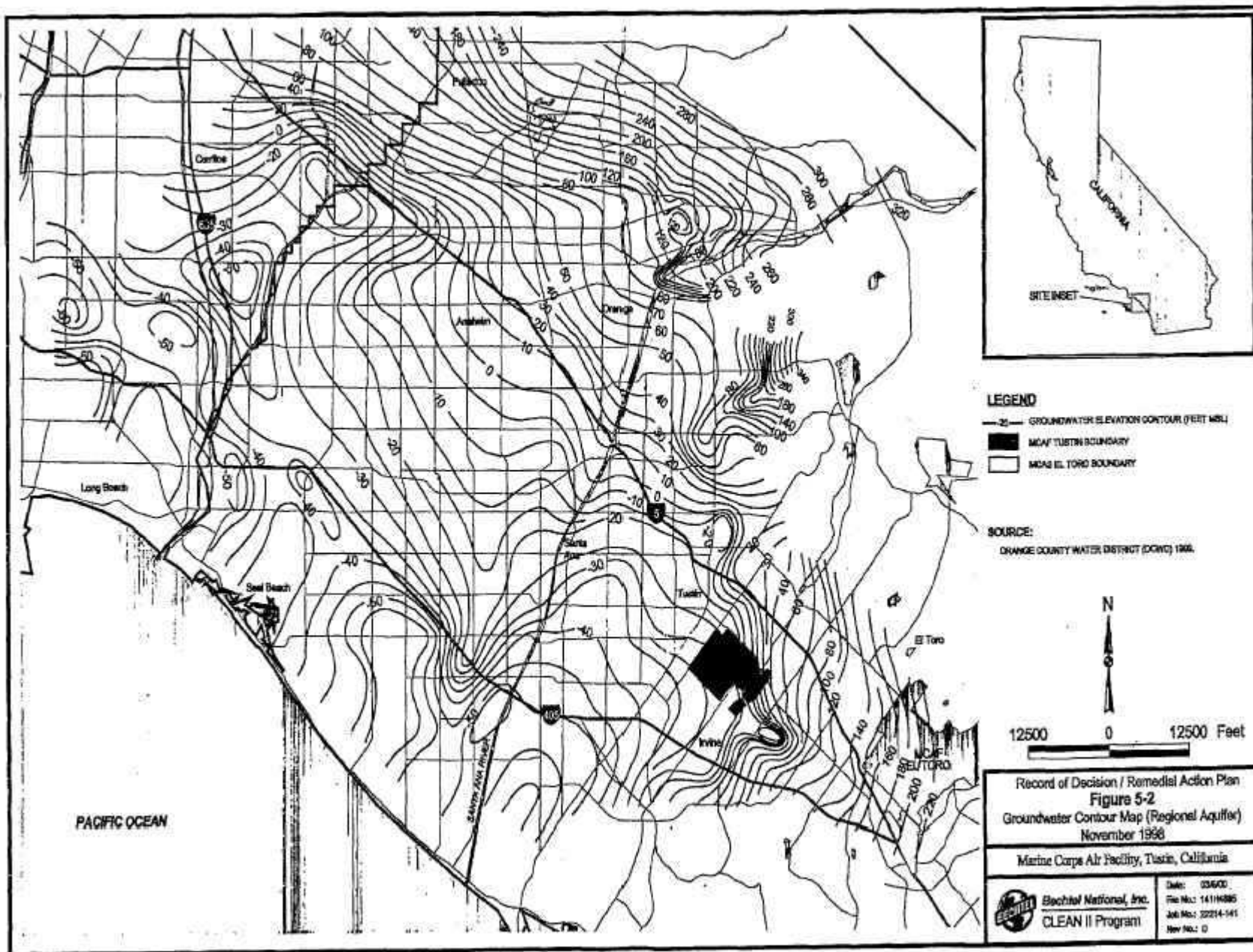
Groundwater flow within the three WBZs is monitored at cluster monitoring well locations throughout MCAF Tustin. With the exception of localized, relatively minor variations in direction and gradient, the first and second WBZs flow in the same general direction, generally toward the south, except in the vicinity of Peters Canyon Channel and San Diego Creek. In the vicinity of these drainages, groundwater flows toward the drainages. Groundwater within the third WBZ is not influenced by the drainages and flows south-southwest.

The vertical groundwater flow potential between permeable units is described by vertical gradients. Vertical gradients are calculated from groundwater elevation data from wells corresponding to the first, second, and third WBZs within the shallow aquifer and between wells within the shallow and regional aquifers. Within the shallow aquifer, there is an upward flow potential near Peters Canyon Channel, Barranca Channel, and Santa Ana-Santa Fe Channel. Away from the influence of the surface channels, there is either a slight downward or no vertical flow potential among the three WBZs of the shallow aquifer. There is potential for downward flow between monitoring wells screened in the shallow aquifer and the regional aquifer.

### 5.1.2 Surface Hydrogeology

MCAF Tustin is located within the Los Angeles drainage basin. Surface waters in the Los Angeles drainage basin consist typically of small streams, flood channels, and water-storage reservoirs. San Diego Creek, Peters Canyon Channel, Barranca Channel, Santa Ana-Santa Fe Channel, and San Joaquin Ditch typically contain water year-round.





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Section 5 Site Characteristics

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(Figure 5-3). San Diego Creek is southeast of the installation and flows southwest into Newport Bay. Three man-made channels bound MCAF Tustin: Barranca Channel to the south, Santa Ana-Santa Fe Channel to the north, and Peters Canyon Channel to the east. Incised about 10 to 20 feet below the surrounding land surface, these channels are unlined, thus permitting flow between groundwater and surface water. Data obtained during the RI indicate that in the vicinity of MCAF Tustin, both Barranca and Peters Canyon channels are “gaining” streams in the reach of MCAF Tustin, while Santa Ana-Santa Fe Channel loses water in its western reach and gains in the eastern reach. San Joaquin Ditch is a main on-site drainage ditch, portions of which have been designated as U.S. Army Corps of Engineers (USACOE) jurisdictional wetlands. San Joaquin Ditch collects stormwater and irrigation runoff water in the central and eastern portions of MCAF Tustin and discharges into Peters Canyon Channel through a conduit beneath Barranca Parkway.

Surface drainage is controlled by the local topography and by various man-made drainage facilities. Surface runoff at MCAF Tustin originates almost entirely from the installation, because surface runoff upgradient of the base to the northeast is intercepted by ditches parallel to the Santa Fe railroad tracks along the northeast side of the base. Surface runoff of excess precipitation and irrigation return flow leaves the installation in two ways: through the underground storm drainage system or through open ditches and channels. Peters Canyon Channel and Barranca Channel receive surface runoff and storm drain discharge from MCAF Tustin.

In general, surface-water flow is to the south and southwest, away from MCAF Tustin; however, along two edges of the installation, Santa Ana-Santa Fe Channel and Barranca Channel carry flow southeast toward Peters Canyon Channel. Short ditches along the Santa Fe railroad tracks and along Warner Avenue and a culvert beneath Edinger Avenue carry flow northwest toward Peters Canyon Channel. Peters Canyon Channel receives runoff from Santa Ana-Santa Fe Channel on the northeast side and from San Joaquin Ditch in the center of the installation. Peters Canyon Channel merges with San Diego Creek approximately 1 mile southwest of MCAF Tustin. Barranca Channel merges with San Diego Creek approximately 2 miles southwest of the base. San Diego Creek empties into upper Newport Bay approximately 5 miles southwest of the base.

A floodplain is designated on the eastern side of MCAF Tustin (Figure 5-3). It represents the 100-year shallow flooding zone of the adjacent channels, not the flooding due to surface runoff from the installation. Floodwater depths for the 100-year floodplain encroachment are estimated at 1 to 3 feet. Floodwaters at the facility would be contained in Peters Canyon Channel (BNI 2000).

## 5.2 EXPANDED SITE INSPECTION SITES

IRP-2 and IRP-9 were included in the ESI. The ESI was conducted for these sites because previous investigations concluded that these sites did not present a significant threat to human health and/or the environment, and the site-specific information collected during previous investigations did not warrant an investigation of the magnitude usually



specified in an RI. However, to facilitate closure of MCAF Tustin in 1999, the ESI was conducted similar to an RI to ensure that sufficient information was collected to allow each site to be recommended for no further action. The ESI included a review of pertinent background information, performance of field investigations (including collection and analysis of soil and groundwater samples), evaluation of data (including a leaching evaluation and groundwater modeling), and assessment of potential human health risks. A draft ESI report was prepared and reviewed by the Navy, regulatory agencies (DTSC, U.S. EPA, and RWQCB), and the RAB. Revisions were made to the draft final ESI Report in accordance with the comments on the draft ESI; responses to the reviewer comments were included as an attachment to the draft final ESI (BNI 1996a). The activities and the results of the ESI with respect to IRP-2 and IRP-9 are summarized below.

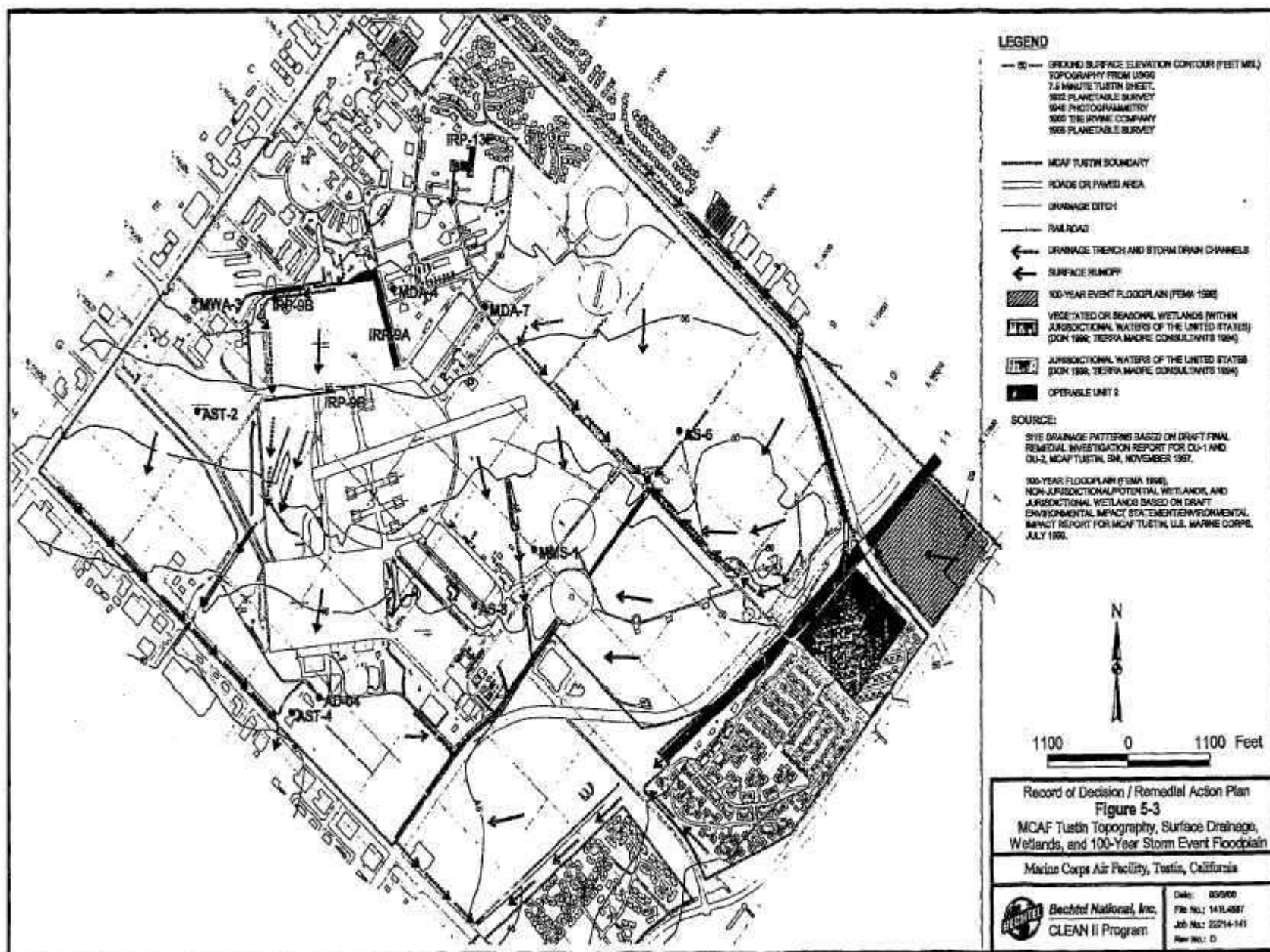
### **5.2.1 IRP-2, Oil Disposal Area**

IRP-2 is located in the northeastern portion of MCAF Tustin. The site is a former oil disposal area that reportedly operated from approximately 1970 to 1981. In the late 1970s, a pistol range was located in the southeastern portion of the site, and a skeet and trap shooting range was located approximately 100 yards north of the pistol range. As-built drawings from 1979 indicated a fuel storage tank at the pistol range and a pad-mounted transformer at the skeet and trap shooting range. Prior to closure, 278 housing units and various recreational facilities (e.g., tennis, handball, basketball courts) occupied the site.

Historical information indicates that wastes were poured or sprayed onto the ground surface at IRP-2 from the back of a moving truck. It was reported that, from 1970 to 1981, an estimated 4,400 to 6,600 gallons of waste oil was discharged directly to the unpaved soil at IRP-2. The waste oil contained jet propellant - Grade 5 (JP-5), crankcase oil, hydraulic fluid, and solvents (Jacobs Engineering 1993a).

During the SI, soil gas, soil, and groundwater samples were collected and analyzed across the site (Jacobs Engineering 1993a). A total of 30 soil gas samples were analyzed for volatile organic compounds (VOCs), and 12 near-surface soil samples (including 2 duplicates) and 4 HydroPunch® groundwater samples were selected randomly over an area identified on aerial photographs and in areas of stressed vegetation. Soil and groundwater samples were analyzed for VOCs, total petroleum hydrocarbons (TPH) or total recoverable petroleum hydrocarbons (TRPH), semivolatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs), pesticides, and metals.

To augment the SI, the ESI included collecting additional samples from soil and groundwater. A total of 97 ESI soil samples were collected at depths ranging from 0.5 to 30 feet bgs: 78 of these samples were collected from near-surface soil (0 to 2.5 feet bgs), 8 from shallow soil (2.5 to 12.5 feet bgs), and 11 from deep soil (12.5 feet to the first WBZ). Saturated sands of the first WBZ were encountered from approximately 15 to



## Section 5 Site Characteristics

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34 feet bgs. Soil samples were analyzed for VOCs and TRPH at an on-site laboratory. Selected soil samples were also submitted to an off-site laboratory for additional analysis for VOCs, PCBs, polynuclear aromatic hydrocarbon (PAH) compounds, and target analyte list (TAL) metals plus molybdenum. Table 5-1 summarizes the results of soil sampling at IRP-2 and incorporates the results of the SL

The nature and extent of COPCs in groundwater at IRP-2 were evaluated during the ESI based on analytical data for groundwater samples collected from three soil borings and four wellpoints. One wellpoint was located near the southeast corner of the site where selenium was detected in groundwater at a concentration exceeding the maximum contaminant level (MCL) during the 1991 SI. The other three wellpoints were located in a downgradient area of the site. Groundwater samples were analyzed on-site for VOCs. Samples from the wellpoints were also analyzed at an off-site laboratory for VOCs, PCBs, and TAL metals plus molybdenum. Sampling results from the SI and ESI were used to evaluate the nature and extent of COPCs in groundwater (Table 5-2).

The predominant COPCs reported in soil at IRP-2 were PAH compounds and metals. A localized area of elevated PAH concentrations (hot spot) in near-surface soil was identified on the southwestern side of IRP-2. Most metals in soil exceeded background concentrations only slightly and in only a few samples (less than 10 percent). The predominant COPCs reported in groundwater were metals. VOCs were not reported in groundwater. The geochemical evaluation conducted as part of the ESI indicated that metals in soil and groundwater were within the naturally occurring range and not the result of base operations. The leaching evaluation (vadose zone transport model) indicated that COPCs at IRP-2 would leach to groundwater at concentrations below the tap water preliminary remediation goals (PRGs).

Subsequent to the ESI, a non-time-critical removal action was conducted to remediate the hot spot at IRP-2. The results of the removal action are documented in a draft Closure Report (OHM 1998a). At IRP-2, soil was excavated to approximately 1 foot bgs and treated using an on-site thermal desorption unit. Following treatment, the excavated area was backfilled with the treated soil and compacted. Approximately 569 tons of PAH- contaminated soil were excavated 23-28 May 1997. For the removal action at IRP-2, the cleanup goal was established for the organic chemical of concern contributing the most to the total risk: benzo(a)pyrene at 61 micrograms per kilogram (Fg/kg) (SWDIV 1997). This cleanup goal corresponds to a  $1 \times 10^{-6}$  level of cancer risk based on a residential exposure scenario. Based on confirmation soil sampling results (Table 5-3), the removal action objectives were met. Table 5-3 provides a summary of confirmation soil sampling conducted at IRP-2 following the non-time-critical removal action at that site.

**Table 5-1**  
**COPCs Reported in Soil at IRP-2 Oil Disposal Area**  
**(prior to removal action)**

Analyte	Frequency of Detection	Detection Limit	Range of Concentrations	Units	Background Levels
<b>ON-SITE LABORATORY INDICATOR PARAMETER RESULTS</b>					
TRPH	42/97	10	11–98	mg/kg	a
VOCs	5/97	6–25	ND	µg/kg	a
<b>OFF-SITE LABORATORY RESULTS<sup>b</sup></b>					
<b>Volatile Organic Compounds</b>					
Acetone <sup>c</sup>	7/20	12–51	5–11	µg/kg	a
Ethylbenzene <sup>c</sup>	1/20	5.5–12	12	µg/kg	a
Methylene chloride <sup>c</sup>	1/20	5.2–160	1.5	µg/kg	a
Toluene <sup>c</sup>	1/20	5.2–12	5	µg/kg	a
Trichloroethene <sup>c</sup>	3/20	5.2–12	2–3	µg/kg	a
m,p-xylene <sup>c</sup>	1/3	5.5–6.2	170	µg/kg	a
o-xylene <sup>c</sup>	1/3	5.5–6.2	68	µg/kg	a
<b>Total Recoverable Petroleum Hydrocarbons</b>					
TRPH	4/7	25–38	25–630	mg/kg	a
<b>Polynuclear Aromatic Hydrocarbons</b>					
Acenaphthene <sup>c</sup>	1/29	11–458.7	850	µg/kg	a
Anthracene <sup>c</sup>	5/29	5.5–458.7	3.6–990	µg/kg	a
Benz(a)anthracene <sup>c</sup>	7/29	5.5–458.7	3.3–2,700	µg/kg	a
Benzo(a)pyrene <sup>c</sup>	7/29	5.5–458.7	8.3–1,400	µg/kg	a
Benzo(b)fluoranthene <sup>c</sup>	9/29	11–458.7	6–1,800	µg/kg	a
Benzo(k)fluoranthene <sup>c</sup>	9/29	5.5–458.7	2.8–800	µg/kg	a
Chrysene <sup>c</sup>	7/29	5.5–458.7	1.9–3,900	µg/kg	a
Fluoranthene <sup>c</sup>	10/29	11–458.7	4.5–6,800	µg/kg	a
Fluorene <sup>c</sup>	1/29	11–5500	2.1	µg/kg	a
Phenanthrene <sup>c</sup>	6/29	5.5–458.7	2.9–4,600	µg/kg	a
Pyrene <sup>c</sup>	10/29	5.5–458.7	4.7–6,400	µg/kg	a
<b>Semivolatile Organic Compounds</b>					
bis(2-ethylhexyl)phthalate <sup>c</sup>	7/12	356.4–400	43–360	µg/kg	a
Butylbenzylphthalate <sup>c</sup>	2/12	356.4–458.7	62–95	µg/kg	a
Dimethylheptadecane (TIC)	1/1	a	220	µg/kg	a
Naphthalene, 1,2,3,4-tetrahydro-1,8-dimethyl (TIC)	1/1	a	310	µg/kg	a

(table continues)

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Table 5-1 (continued)

Analyte	Frequency of Detection	Detection Limit	Range of Concentrations	Units	Background Levels
Pentadecane (TIC)	1/1	d	690	µg/kg	a
Tribromophenol (TIC)	1/1	d	120	µg/kg	a
<b>Pesticides</b>					
4,4'-DDE <sup>b</sup>	3/12	17.44–22.08	22–28	µg/kg	a
4,4'-DDT <sup>c</sup>	4/12	17.44–22.08	24–35	µg/kg	a
<b>Inorganic Analytes</b>					
<b>TAL Metals</b>					
Aluminum <sup>f</sup>	44/44	200	5,340–39,700	mg/kg	36,300
Arsenic <sup>c</sup>	50/51	1.3	1.5–30.3	mg/kg	17.5
Cadmium <sup>f</sup>	24/51	0.87–1.4	0.91–4.6	mg/kg	1.8
Cobalt <sup>c</sup>	42/44	3.1–4.8	1.8–17.9	mg/kg	15.1
Copper <sup>c</sup>	51/51	0–25	4.8–67.8	mg/kg	41.5
Lead <sup>c</sup>	50/51	12.2	1.9–164	mg/kg	23.4
Manganese <sup>c</sup>	44/44	15	104–1,680	mg/kg	1,100
Mercury <sup>c</sup>	2/51	0.09–0.17	0.17–0.31	mg/kg	BDL
Molybdenum <sup>f</sup>	8/44	3.7–5.7	4.7–18.4	mg/kg	10.0
Nickel <sup>f</sup>	48/51	4.5–13.8	6.8–51.4	mg/kg	27.8
Silver <sup>c</sup>	1/51	0.29–1.4	1.2	mg/kg	BDL
Thallium <sup>f</sup>	10/51	0.22–1	0.31–1.7	mg/kg	1.60
Vanadium <sup>f</sup>	44/44	50	14–207	mg/kg	80.6
Zinc <sup>c</sup>	51/51	0–20	20.8–160	mg/kg	141

## Notes:

<sup>a</sup> background not calculated for organics and certain inorganics<sup>b</sup> analytes with maximum concentrations above background<sup>c</sup> COPC used to calculate risk<sup>d</sup> detection limits not calculated for TICs

## Acronyms/Abbreviations:

BDL - below detection limits

COPC - chemical of potential concern

DDE - dichlorodiphenyldichloroethene

DDT - dichlorodiphenyltrichloroethane

IRP - Installation Restoration Program

µg/kg - micrograms per kilogram

mg/kg - milligrams per kilogram

ND - not detected

TAL - target analyte list

TIC - tentatively identified compound

TRPH - total recoverable petroleum hydrocarbons

VOC - volatile organic compound

**Table 5-2**  
**COPCs Reported in Groundwater at IRP-2 Oil Disposal Area**  
**(units reported in micrograms per liter)**

Analyte	Frequency of Detection	Detection Limit	Range of Concentrations	Background Levels
<b>ON-SITE LABORATORY INDICATOR PARAMETER RESULTS</b>				
Volatile organic compounds	0/9	3 – 12.5	ND	<sup>a</sup>
<b>OFF-SITE LABORATORY RESULTS<sup>b</sup></b>				
<b>Total Petroleum Hydrocarbons</b>				
TPH	3/4	50	83 – 290	<sup>a</sup>
<b>Semivolatile Organic Compound</b>				
1,2-diiodoethane (TIC)	1/1	<sup>d</sup>	16	<sup>c</sup>
<b>Inorganic Analytes</b>				
<b>TAL Metals</b>				
Arsenic <sup>d</sup>	5/5	10 – 200	8.7 – 47.7	8.3
Cadmium <sup>d</sup>	1/5	4 – 5	4.4	2.5
Mercury <sup>d</sup>	1/5	0.2	0.24	BDL
Molybdenum <sup>d</sup>	5/5	200	348 – 3,310	BDL
Selenium <sup>d</sup>	4/5	3	3.8 – 366	326

**Notes:**

- <sup>a</sup> background not calculated for organics and certain inorganics
- <sup>b</sup> analytes with maximum concentrations above groundwater background
- <sup>c</sup> detection limits not calculated for TICs
- <sup>d</sup> COPC used to calculate risk

**Acronyms/Abbreviations:**

- BDL – below detection limits
- COPC – chemical of potential concern
- IRP – Installation Restoration Program
- ND – not detected
- TAL – target analyte list
- TIC – tentatively identified compound
- TPH – total petroleum hydrocarbons

## Section 5 Site Characteristics

**Table 5-3**  
**Summary of Analytical Results for Confirmation Soil Sampling at IRP-2**  
**(results reported in micrograms per kilogram)**

Analyte	Frequency of Detection	Detection Limits	Range of Concentrations	1995/1996 Residential PRG
<b>Polynuclear Aromatic Hydrocarbons</b>				
Benz(a)anthracene	4/25	8.4 – 45	8.9 – 63	610
Benzo(a)pyrene	7/25	8.4 – 45	8.9 – 54	61
Benzo(b)fluoranthene	1/25	17 – 91	48	610
Benzo(k)fluoranthene	2/25	8.4 – 45	16 – 25	610
Benzo(g,h,i)perylene	1/25	17 – 91	39	NE
Chrysene	4/25	8.4 – 45	12 – 78	6,100
Fluoranthene	5/25	17 – 91	19 – 170	2,600,000
Indeno(1,2,3-c,d)pyrene	1/25	8.4 – 44	36	610
Phenanthrene	3/25	8.4 – 45	8.5 – 130	NE
Pyrene	4/25	8.4 – 45	9.4 – 69	100,000

Source:

OHM 1998b

Acronym/Abbreviation:

IRP – Installation Restoration Program

NE – not established

PRG – preliminary remediation goal

## 5.2.2 IRP-9, Hangar No. 1 Line Shacks and Apron 1

IRP-9 consists of two general areas, IRP-9A and IRP-9B, located in the northwestern portion of MCAF Tustin. IRP-9A is an unpaved area north of Aircraft Parking Apron 1 and south of McCord Road that contained line shacks and temporary hazardous substance storage units (the line shacks are still present). The site consists of a strip of land approximately 85 feet wide by 1,000 feet long. The site stretches along the northern edge of Aircraft Parking Apron 1 and contains five line shacks (Buildings 207, 260, 178, 179, and 261) for use by helicopter maintenance crews and a metal building (Building 201). IRP-9B consists of two areas along the Apron 1 margin, one on the northwest site (Subarea 1) and one on the southeast side (Subarea 3), which were impacted by helicopter exhaust transported to the margins by rainwater runoff.

The SI (Jacobs Engineering 1993a) and ESI (BNI 1996a) focused on IRP-9A. These investigations identified 38 COPCs in the soil at IRP-9A, including PAHs, VOCs, TRPH, TPH, PCBs, and metals. Tables 5-4 and 5-5 summarize the results of soil and groundwater sampling, respectively, at IRP-9A prior to conducting a removal action at

**Table 5-4**  
**COPCs Reported in Soil at IRP-9A Hangar No. 1 Line Shacks<sup>a</sup>**  
**(prior to removal action)**

Analyte	Frequency of Detection	Detection Limits	Range of Concentrations	Units	Background Levels
<b>OFF-SITE LABORATORY RESULTS<sup>b</sup></b>					
<b>Volatile Organic Compounds</b>					
Acetone	8/34	10 – 53	9.2 – 21	µg/kg	c
Bromochlorodifluoromethane (TIC)	1/1	d	39	µg/kg	d
1,2-dichlorobenzene	2/17	5.2 – 1,815	1.3 – 1.9	µg/kg	c
1,4-dichlorobenzene	1/17	5.2 – 1,815	2	µg/kg	c
Methyl ethyl ketone	1/34	10 – 13	1.5	µg/kg	c
Methylene chloride	1/34	5.2 – 110	1.5	µg/kg	c
Toluene	5/34	5.2 – 13	2.5 – 16	µg/kg	c
Freon 11	1/13	5.2 – 6.7	1.3	µg/kg	c
m,p-xylene	3/13	5.2 – 6.7	1.6 – 6.2	µg/kg	c
o-xylene	2/13	5.2 – 6.7	1.8 – 2.4	µg/kg	c
<b>Total Recoverable Petroleum Hydrocarbons</b>					
TPH	1/5	10 – 100	92	mg/kg	c
TPH (JP-5)	1/5	10 – 100	880	mg/kg	c
<b>Polynuclear Aromatic Hydrocarbons</b>					
Acenaphthene	2/37	12 – 12,000	58 – 1,200	µg/kg	c
Anthracene	15/37	2.4 – 745.8	0.53 – 790	µg/kg	c
Benz(a)anthracene	5/37	2.4 – 2,300	4.2 – 7,700	µg/kg	c
Benzo(a)pyrene	23/37	2.4 – 48	5.7 – 6,800	µg/kg	c
Benzo(b)fluoranthene	18/37	2.4 – 1,815	5.3 – 5,100	µg/kg	c
Benzo(g,h,i)perylene	3/37	2.4 – 2,300	210 – 3,400	µg/kg	c
Benzo(k)fluoranthene	23/37	2.4 – 48	2.1 – 3,300	µg/kg	c
Chrysene	21/37	2.4 – 359.7	2.3 – 6,000	µg/kg	c
Dibenzo(a,h)anthracene	4/37	2.4 – 2,300	12 – 1,100	µg/kg	c
Fluoranthene	21/37	2.4 – 745.8	5.2 – 7,900	µg/kg	c
Indeno(1,2,3-c,d)pyrene	2/37	2.4 – 2,300	180 – 3,400	µg/kg	c
Phenanthrene	21/37	2.4 – 745.8	3.8 – 3,400	µg/kg	c
Pyrene	24/37	2.4 – 48	1.2 – 9,500	µg/kg	c

(table continues)



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Table 5-4 (continued)

Analyte	Frequency of Detection	Detection Limits	Range of Concentrations	Units	Background Levels
<b>Semivolatile Organic Compounds</b>					
bis(2-ethylhexyl)phthalate	3/4	745.8 d	170 – 3,000	µg/kg	c
Benzofluoranthene (TIC)	3/3	d	230 – 7,700	µg/kg	d
Benzonaphthothiophene (TIC)	1/1	d	1,800	µg/kg	d
di-n-butyl phthalate	1/4	359.7 – 1,815 bd	130	µg/kg	d
Dimethyl phenanthrene (TIC)	1/1	bd	2,000	µg/kg	d
Methylpyrene (TIC)	2/2	bd	2,400 – 2,900	µg/kg	d
<b>Pesticides</b>					
4,4'-DDE	1/4	17.44 – 18.08	20	µg/kg	c
<b>TAL Metals</b>					
Antimony	3/35	0.41 – 6	0.93 – 1.5	mg/kg	1.4
Arsenic	38/38	0 – 10	1 – 17.9	mg/kg	17.5
Barium	34/34	200	64.1 – 408	mg/kg	305
Cadmium	7/38	0.85 – 1.4	1 – 2.2	mg/kg	1.8
Copper	38/38	0 – 25	5.1 – 203	mg/kg	41.5
Lead	38/38	0 – 3	4.2 – 78.6	mg/kg	23.4
Mercury	3/38	0.09 – 0.14	0.14 – 0.17	mg/kg	BDL
Nickel	38/38	0 – 40	4.4 – 28.5	mg/kg	27.8
Silver	2/38	0.2 – 1.1	0.79 – 0.82	mg/kg	BDL
Thallium	2/38	0.17 – 1	0.76 – 1.8	mg/kg	1.60
Zinc	38/38	0 – 20	22.3 – 816	mg/kg	141
<b>Inorganics</b>					
Cyanide	1/4	0.55 – 0.57	16.8	mg/kg	a,c

## Notes:

- a off-site laboratory results
- b analytes with maximum concentrations above background
- c background not calculated for organics and certain inorganics
- d detection limits not calculated for TICs

## Acronyms/Abbreviations:

BDL & below detection limits  
 COPC & chemical of potential concern  
 DDE & dichlorodiphenyldichloroethene  
 IRP & Installation Restoration Program  
 JP-5 & jet propellant - Grade 5  
 FG/kg & micrograms per kilogram  
 mg/kg & milligrams per kilogram  
 TAL & target analyte list  
 TIC & tentatively identified compound  
 TPH & total petroleum hydrocarbons

**Table 5-5**  
**COPCs Reported in Groundwater at IRP-9A Hangar No.1 Line Shacks<sup>a</sup>**  
**(units reported in micrograms per liter)**

Analyte	Frequency of Detection	Detection Limits	Range of Concentrations	Background Levels
<b>ON-SITE AND OFF-SITE LABORATORY RESULTS<sup>b</sup></b>				
<b>Volatile Organic Compounds</b>				
Acetone	2/7	10	4.1 – 5	c
1,2-dichlorobenzene	1/5	5 – 10	1.1	c
1,4-dichlorobenzene	1/5	5 – 10	1	c
Freon 113 (TIC)	2/2	d	21 – 26	c
Freon 113 (TIC)	2/2	d	13 – 20	c
Methylene chloride	3/7	5 – 10	5 – 27	c
1,1,2,2-tetrachloroethane	1/7	5 – 10	2.1	c
Trichloroethene	3/7	5 – 10	1.7 – 9	c
<b>Total Recoverable Petroleum Hydrocarbons</b>				
TPH (JP-5)	1/3	50	250	c

**Notes:**

- a on-site and off-site laboratory results
- b analytes with maximum concentrations above background
- c background not calculated for organics and certain inorganics
- d detection limits not calculated for TICs

**Acronyms/Abbreviations:**

- COPC – chemical of potential concern
- IRP – Installation Restoration Program
- JP-5 – jet propellant – Grade 5
- TIC – tentatively identified compound
- TPH – total petroleum hydrocarbons

that site. The ESI risk assessment indicated that these COPCs posed a potential risk to human health at the site. Based on the results of the risk assessment, remediation of shallow soil in two small areas within IRP-9A was recommended (BNI 1996h).

The nature and extent of COPCs in groundwater from the first permeable WBZ at IRP-9A were evaluated during the ESI using EnviroCore or HydroPunch sampling methods. Eighteen samples were collected by the EnviroCore method and analyzed by the on-site laboratory, and five samples including one duplicate sample were collected by HydroPunch and analyzed by the on-site and off-site laboratory. All samples were analyzed by the on-site laboratory for VOCs. HydroPunch samples were also analyzed at an off-site laboratory for metals and VOCs. Table 5-4 summarizes the results of on-site and off-site laboratory data and incorporates the results of the SI.

The predominant COPC reported in groundwater was trichloroethene (TCE). The highest TCE concentration (9 micrograms per liter) occurred under the southeast portion of the

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site and does not correlate with soils data (i.e., TCE was not reported in soil samples). However, IRP-9 is located in an area both adjacent to and overlying part of a large VOC plume that originates at OU-1, IRP-13S. Therefore, groundwater at IRP-9 is being addressed as part of the remedial action that is planned for OU-1. The potential for future impacts to groundwater from residual concentrations of COPCs in soil was evaluated as part of the fate and transport analysis. The leaching evaluation conducted as part of the ESI indicated that 12 COPCs in soil had the potential to impact groundwater at concentrations exceeding the MCLs and/or PRGs. Groundwater modeling conducted in the RI was used to verify the leaching evaluation. Modeling indicated that cyanide may impact groundwater above its MCL in the future. The area containing the cyanide was recommended for a non-time-critical removal action.

During a RCRA removal action at Sites ST-47A and ST-47B in the northwestern corner of Apron 1, excavation-related sampling and analytical results suggested that elevated levels of PAHs extended beyond the northern boundary of IRP-9A, along the northwestern edge of Apron 1. In general, the highest PAH concentrations were detected in shallow soil (upper 0.5 feet) closest to the edge of Apron 1 (BNI 1998). Sampling along the margin showed a decrease in PAH concentrations by an order of magnitude at a depth of only 0.5 feet. Table 5-6 summarizes the results of soil sampling at IRP-9B prior to conducting a non-time-critical removal action at that site.

Based on the distribution and concentrations of PAHs in the IRP-9A and IRP-9B samples (and additional samples collected along the northwestern margin of Apron 1), the conceptual model considered most accurate in explaining the PAH release is that PAHs along the apron margins originated from emissions from the combustion of fuels in helicopter engines that were deposited on the apron and subsequently transported off the apron via runoff of washwater or rainwater (BNI 1998). The runoff would dissipate relatively rapidly and seep into the soil, leaving behind the PAHs, which tend to bind to soil. The conceptual model for the release of PAHs was confirmed based on the distribution and concentrations of PAHs in surface soil surrounding the aprons. TPH is likely to have originated from the same source as the PAHs given the low concentrations (typically below 1,000 milligrams per kilogram [mg/kg]). Based on the distribution, magnitude, and geographic location of PAHs at each apron, perimeter surface soil was divided into subareas. These subareas were identified for the screening risk assessment so that remedial actions, if necessary, could be developed for relatively localized areas. A human health screening risk assessment, based on the 1998 U.S. EPA Region IX PRGs for residential soil, was conducted for each of the apron subareas (BNI 1998). As a result of the screening risk assessment, Apron 1 Subareas 1 and 3 (IRP-9B) were estimated to pose cancer risk levels exceeding  $1 \times 10^{-4}$  and, thus, were recommended for a non-time-critical removal action.

Non-time-critical removal actions were conducted to remediate IRP-9A and IRP-9B. The removal actions addressed PAH compounds in the soil because PAH compounds were determined to be the primary risk drivers at IRP-9A and IRP-9B (BNI 1996a and 1998).

**Table 5-6**  
**COPCs Reported in Soil at IRP-9B Apron 1<sup>a</sup>**  
**(prior to removal action)**

Analyte Name	Frequency of Detection	Range of Concentrations	Units	Background Levels
<b>Polynuclear Aromatic Hydrocarbons</b>				
Acenaphthylene	12/39	34 – 2,200	µg/kg	b
Acenaphthene	4/39	32 – 170	µg/kg	b
Anthracene	20/39	9 – 4,000	µg/kg	b
Benz(a)anthracene	35/39	7 – 8,300	µg/kg	b
Benzo(b)fluoranthene	32/39	19.4 – 17,000	µg/kg	b
Benzo(a)pyrene	38/39	18.5 – 10,000	µg/kg	b
Benzo(g,h,i)perylene	33/39	18.9 – 4,700	µg/kg	b
Benzo(k)fluoranthene	29/29	9.7 – 3,000	µg/kg	b
Chrysene	38/39	10.9 – 12,000	µg/kg	b
Dibenz(a,h)anthracene	15/39	10 – 1,900	µg/kg	b
Fluorene	13/39	2 – 1,000	µg/kg	b
Fluoranthene	38/39	19.4 – 15,000	µg/kg	b
Indeno(1,2,3-c,d)pyrene	34/39	7.1 – 4,900	µg/kg	b
Naphthalene	2/39	60 – 70	µg/kg	b
Phenanthrene	37/39	10.7 – 16,000	µg/kg	b
Pyrene	37-39	13 – 24,000	µg/kg	b
<b>Total Petroleum Hydrocarbons</b>				
Hydrocarbons	14/15	40 – 1,440	mg/kg	b

**Note:**

- a off-site laboratory results
- b background levels not calculated for organics

**Acronyms/Abbreviations:**

COPC ! chemical or potential concern  
 IRP ! Installation Restoration Program  
 µg/kg ! micrograms per kilogram  
 mg/kg ! milligrams per kilogram

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Although metals in a few samples from IRP-9A exceeded PRGs, the concentrations were determined to be predominantly within the range of naturally occurring variations of soil concentrations (BNI 1996a). The results of the removal action are documented in a draft final Closure Report dated 18 May 2000 (OHM 2000a). At IRP-9(A/B), soil was excavated to an average depth of between 1 and 1.5 feet bgs and treated using an on-site desorption unit. Following treatment, the excavated area was backfilled with the treated soil and compacted. Approximately 700 tons and 6,827 tons of PAH-contaminated or TPH-contaminated soil were excavated from IRP-9A and IRP-9B, respectively. The removal action was conducted at IRP-9A between 10 July 1997 and 04 September 1997 and the removal action was conducted at IRP-9B between 14 October 1998 and 05 January 1999. Tables 5-7 through 5-9 summarize the results of confirmation sampling conducted following soil removal. For the removal action at IRP-9, the cleanup goals selected for organic COPCs that are the greatest contributors to the total risk were the residential PRGs. These cleanup goals correspond to a  $1 \times 10^{-6}$  level of cancer risk, although allowable risk is considered to be up to  $1 \times 10^{-4}$ , and a noncancer risk (hazard index) of less than 1. Based on the sampling results, the cleanup goals were met at IRP-9A And IRP-9B. Excess cancer risks and noncancer risks were calculated for IRP-9A and IRP-9B following soil removal. The results indicate that the noncancer risks for resident adults, children, and industrial workers were less than 1.0 for both IRP-9A and IRP-9B. Under these scenarios, the total cancer risk ranged between  $1 \times 10^{-6}$  and  $4 \times 10^{-6}$  for IRP-9A and between  $7 \times 10^{-7}$  and  $2 \times 10^{-6}$  for IRP-9B. These risk values are within the allowable range defined by U.S. EPA for unrestricted residential or industrial use. The risk assessments for IRP-9A and IRP-9B are discussed further in Section 7.

### 5.3 RFA AOCs

The no action AOCs were included in the RFA. The RFA was conducted for these sites to investigate the presence of COPCs at the AOCs, conduct screening risk assessments, and perform fate and transport analyses. The results of the risk assessment and the fate and transport analyses were used to develop recommendations for further action or evaluation, if needed. Once field samples were collected and laboratory analytical results were obtained, risk levels were calculated based on potential human exposure to COPCs in soil and groundwater. The risk assessment action levels were based on the NCP criteria stating that:

- ! no action is needed where cancer risk probabilities are less than  $1 \times 10^{-6}$  (one in one million) and the hazard index is less than 1.0 and
- ! action is needed where cancer risk probabilities exceed  $1 \times 10^{-4}$  (100 in one million) and the hazard index is greater than 1.0.

For the RFA Report, a risk management decision based on site-specific information was used to recommend further evaluation if the cancer risk probabilities were between  $1 \times 10^{-4}$  and  $1 \times 10^{-6}$ . A draft final RFA Report was issued in April 1997 (BNI 1997b). The activities and the results of the RFA with respect to the no action AOCs are summarized below.

**Table 5-7**  
**Summary of Confirmation Soil Sampling at IRP-9A – Subareas 1 and 2**  
**(units reported in micrograms per kilogram)**

Analyte	Frequency of Detection	Detection Limits	Range of Detected Concentrations	1998 Residential PRG
<b>Polynuclear Aromatic Hydrocarbons</b>				
Acenaphthene	0/56	250 – 1,300	NA	2,600,000
Acenaphthylene	0/56	500 – 2,600	NA	NE
Anthracene	0/56	25 – 130	NA	14,000,000
Benz(a)anthracene	6/56	25 – 130	27 – 66	560
Benzo(a)pyrene	14/56	25 – 130	34 – 190	56
Benzo(b)fluoranthene	3/56	50 – 260	56 – 110	560
Benzo(g,h,i)perylene	4/56	50 – 260	67 – 120	NE
Benzo(k)fluoranthene	9/56	25 – 130	26 – 99	56,000
Chrysene	13/56	25 – 130	27 – 150	6,100
Dibenz(a,h)anthracene	0/56	50 – 260	NA	56
Fluoranthene	10/56	50 – 260	52 – 250	2,000,000
Fluorine	0/56	50 – 260	NA	1,800,000
Indeno(1,2,3-c,d)pyrene	13/56	25 – 130	29 – 120	560
Naphthalene	0/56	250 – 1,300	NA	55,000
Phenanthrene	5/56	25 – 130	26 – 120	NE
Pyrene	9/56	25 – 130	32 – 130	1,500,000

Acronyms/Abbreviations:

IRP – Installation Restoration Program

NA – not analyzed

NE – not established

PRG – preliminary remediation goal

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**Table 5-8**  
**Summary of Confirmation Soil Sampling at IRP-9B – Subarea 1**  
**(units reported in micrograms per kilogram)**

<b>Analyte</b>	<b>Frequency of Detection</b>	<b>Detection Limits</b>	<b>Range of Detected Concentrations</b>	<b>1998 Residential PRG</b>
<b>Polynuclear Aromatic Hydrocarbons</b>				
Acenaphthene	1/223	260 – 15,000	572	2,600,000
Acenaphthylene	4/223	520 – 31,000	76 – 99	NE
Anthracene	26/233	26 – 300	2.4 – 260	14,000,000
Benz(a)anthracene	66/223	26 – 290	2.82 – 733	560
Benzo(a)pyrene	86/223	26 – 290	3.01 – 873	56
Benzo(b)fluoranthene	96/223	52 – 65	3 – 595	560
Benzo(g,h,i)perylene	42/223	52 – 3,100	5.7 – 700	NE
Benzo(k)fluoranthene	62/223	26 – 1,500	1.22 – 320	56,000
Chrysene	101/223	26 – 32	2.1 – 1,600	6,100
Dibenz(a,h)anthracene	47/223	52 – 3,100	3.0 – 570	56
Fluoranthene	81/223	52 – 65	6.4 – 2,400	2,000,000
Fluorine	4/223	52 – 3,100	6 – 130	1,800,000
Indeno(1,2,3-c,d)pyrene	92/223	26 – 140	1.34 – 810	560
Naphthalene	2/223	260 – 15,000	32 – 41	55,000
Phenanthrene	97/223	26 – 31	3.1 – 1,900	NE
Pyrene	79/223	26 – 290	3.35 – 1,460	1,500,000

## Acronyms/Abbreviations:

IRP – Installation Restoration Program

NE – not established

PRG – preliminary remediation goal

### 5.3.1 AD-04, Air-Photo-Identified Possible Disposal Trench

AD-04 is located near the southern boundary of MCAF Tustin near Barranca Parkway and about 90 feet north of the eastern end of the Armed Services Reserve Center Garage, just outside of the Reserve Center fence. The AOC was identified as a possible disposal trench in an aerial photograph from 1965 (Jacobs Engineering 1992a). According to the Addendum to the revised PR/draft VSI Report, the location is covered by vegetation and there is no visible evidence of the trench (Jacobs Engineering 1992c).

Two rounds of soil sampling were conducted at AD-04 during the SV. A total of 26 soil samples were collected from 8 borings at depths of 1, 5, and 10 feet bgs. Groundwater was encountered at 7 to 10 feet bgs. The presence of groundwater at this depth suggested the possibility of release to groundwater. Therefore, two temporary wellpoints were installed during the second round of sampling. One wellpoint was installed upgradient of

**Table 5-9**  
**Summary of Confirmation Soil Sampling at IRP-9B – Subarea 3**  
**(units reported in micrograms per kilogram)**

<b>Analyte</b>	<b>Frequency of Detection</b>	<b>Detection Limits</b>	<b>Range of Detected Concentrations</b>	<b>1998 Residential PRG</b>
<b>Polynuclear Aromatic Hydrocarbons</b>				
Acenaphthene	1/239	250 – 15,000	190	2,600,000
Acenaphthylene	10/239	500 – 30,000	64 – 110	NE
Anthracene	20/230	25 – 320	3.3 – 430	14,000,000
Benz(a)anthracene	80/240	25 – 1,500	1.5 – 510	560
Benzo(a)pyrene	99/240	29 – 310	2.3 – 880	56
Benzo(b)fluoranthene	115/240	50 – 620	2.3 – 2,600	560
Benzo(g,h,i)perylene	46/239	51 – 3,000	7.4 – 660	NE
Benzo(k)fluoranthene	67/240	25 – 1,500	1.4 – 530	56,000
Chrysene	113/240	25 – 1,500	1.6 – 670	6,100
Dibenz(a,h)anthracene	35/239	50 – 3,000	3.2 – 500	56
Fluoranthene	98/240	50 – 3,000	5.1 – 3,700	2,000,000
Fluorine	10/239	50 – 3,000	7.2 – 560	1,800,000
Indeno(1,2,3-c,d)pyrene	96/240	25 – 1,500	1.6 – 590	560
Naphthalene	1/239	250 – 15,000	730	55,000
Phenanthrene	113/240	25 – 1,500	3.2 – 6,000	NE
Pyrene	81/240	25 – 1,500	5.4 – 2,900	1,500,000

Acronyms/Abbreviations:

IRP – Installation Restoration Program

NE – not established

PRG – preliminary remediation goal

the AOC to monitor for COPCs in groundwater entering the AOC from fueling areas associated with Aircraft Parking Apron No. 2. The second wellpoint was installed downgradient of the AOC to monitor for COPCs in groundwater leaving the AOC.

Because no historical information was available on the nature of materials, if any, that may have been disposed at AD-04, all soil samples were analyzed on-site for VOCs and TRPH. Additionally, selected AD-04 samples were analyzed at an off-site laboratory for VOCs, PAHs, PCBs, and TAL metals plus molybdenum. For second-round sampling, all samples collected were submitted to the off-site laboratory for TAL metals plus molybdenum analysis. Tables 5-10 and 5-11 present sampling results for soil and groundwater, respectively. As Table 5-10 shows, analytes reported in soil included four metals above background, six VOCs, six PAH compounds, and Aroclor 1260. No organics were reported in groundwater. The leaching evaluation conducted as part of the RFA indicated that chloroform has the potential to affect groundwater at concentrations



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**Table 5-10**  
**COPCs and Range of Concentrations for Analytes Reported in Soil at AD-04**

Analyte	Frequency of Detection	Detection Limit	Range of Concentrations	Units	Background Levels <sup>a</sup>
<b>ON-SITE LABORATORY INDICATOR PARAMETER RESULTS</b>					
TRPH	5/26	10	11.0 – 50.0	mg/kg	b
VOCS	0/26	6.0 – 25.0	ND	µg/kg	b
<b>OFF-SITE LABORATORY RESULTS</b>					
<b>Analytes With Maximum Concentrations Above Background</b>					
Beryllium <sup>c</sup>	26/26	5	0.52 – 1.2	mg/kg	1.1
<b>Inorganic Analytes With Maximum Concentrations Above Background</b>					
Aluminum <sup>c</sup>	26/26	200	21,000 – 38,900	mg/kg	36,300
Lead <sup>c</sup>	26/26	3 – 100	9 – 24.3	mg/kg	23.4
Vanadium <sup>c</sup>	26/26	50	54.7 – 87.9	mg/kg	80.6
<b>Organic Analytes</b>					
<b>Volatile Organic Compounds</b>					
Acetone <sup>c</sup>	3/14	11 – 14	5.5 – 42	µg/kg	b
Carbon disulfide <sup>c,d</sup>	1/14	5.7 – 7	1.8	µg/kg	b
Chloroform <sup>c</sup>	1/14	5.7 – 7	2.6	µg/kg	b
1,2-dichlorobenzene <sup>c</sup>	1/14	5.7 – 7	3.2	µg/kg	b
Methylene chloride <sup>c,d</sup>	8/14	5.7 – 6.7	1.5 – 2.3	µg/kg	b
<b>Polynuclear Aromatic Hydrocarbons</b>					
Benzo(a)pyrene <sup>c</sup>	1/14	2.6 – 26	17	µg/kg	b
Benzo(b)fluoranthene <sup>c</sup>	1/14	2.6 – 26	17	µg/kg	b
Benzo(k)fluoranthene <sup>c</sup>	1/14	2.6 – 26	9.1	µg/kg	b
Fluoranthene <sup>c</sup>	2/14	2.6 – 26	1.9 – 14	µg/kg	b
Phenanthrene <sup>c</sup>	2/14	2.6 – 26	0.58 – 4.1	µg/kg	b
Pyrene <sup>c</sup>	4/14	2.6 – 6.5	0.55 – 14	µg/kg	b
<b>Polychlorinated Biphenyls</b>					
Aroclor 1260 <sup>c</sup>	1/14	14 – 18	29	µg/kg	b
<b>Tentatively Identified VOCs</b>					
Acetonitrile <sup>c</sup>	1/14	NA	8	µg/kg	b
<b>Inorganic Analytes With Maximum Concentrations Below Background</b>					
Arsenic	26/26	10	5.7 – 10.5	mg/kg	17.5
Barium	26/26	200	160 – 242	mg/kg	305
Cadmium	3/26	0.87 – 1.4	0.61 – 1.2	mg/kg	1.8
Molybdenum	8/26	3.7 – 5.3	3.8 – 8.1	mg/kg	10

(table continues)

**Table 5-10** (continued)

Analyte	Frequency of Detection	Detection Limit	Range of Concentrations	Units	Background Levels <sup>a</sup>
Antimony	1/24	0.65 – 1.1	1.4	mg/kg	1.4
Cobalt	26/26	50	7.8 – 14.8	mg/kg	15.1
Copper	26/26	25	24.1 – 39.6	mg/kg	41.5
Chromium	26/26	10	22.8 – 38.9	mg/kg	39.2
Chromium (hexavalent)	1/4	0.024 – 0.039	0.029	mg/kg	0.16
Manganese	26/26	15	393 – 739	mg/kg	1,100
Nickel	26/26	40	15.4 – 27	mg/kg	27.8
Selenium	24/26	1 – 1.1	1.1 – 3.5	mg/kg	3.7
Zinc	26/26	20	83 – 141	mg/kg	141

## Notes:

- a background levels = calculated 99th percentile concentration (BNI 1997b)
- b Background not calculated for organic compounds
- c COPC used to calculate risk
- d low concentrations of methylene chloride and carbon disulfide are frequently the result of laboratory contamination; however, as a conservative measure, these analytes are included in the list of COPCs for this area of concern

## Acronyms/Abbreviations:

- COPC – chemical of potential concern
- µg/kg – micrograms per kilogram
- mg/kg – milligrams per kilogram
- NA – not applicable
- ND – not detected
- TRPH – total recoverable petroleum hydrocarbons
- VOC – volatile organic compound

exceeding the tap water PRG. Groundwater was recommended for evaluation in the RI because of the carcinogenic risks resulting from the presence of chromium in groundwater ( $1.3 \times 10^{-4}$ ) as well as noncarcinogenic risks resulting from the presence of molybdenum. The RI geochemical evaluation indicated that metals in groundwater are within the naturally occurring range, and the leaching evaluation indicated that the 30-year average concentrations of chloroform leaching from soil to groundwater will be below the tap water PRG.

### 5.3.2 AS-06, Air-Photo-Identified Possible Temporary Storage Unit

AS-06 is located north of Moffett Drive in the east-central portion of MCAF Tustin. The AOC was identified in a 1953 aerial photograph and was visible in other aerial photographs up to January 1975 (Jacobs Engineering 1992a). AS-06 was a possible hazardous material storage unit at an isolated, undeveloped area at the north end of Kilpatrick Road. The unit measured approximately 60 feet by 80 feet. According to the

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**Table 5-11**  
**COPCs and Range of Concentrations for Analytes Reported in Groundwater at AD-04<sup>a</sup>**  
**(units reported in micrograms per liter)**

Analyte	Frequency of Detection	Detection Limits	CONCENTRATION		Background Levels
			CAD4WP001 (Downgradient)	CAD4WP002 (Upgradient)	
ON-SITE LABORATORY INDICATOR PARAMETER RESULTS					
VOCs	0/7	3.0 – 25.0	ND	ND	
OFF-SITE LABORATORY RESULTS					
Inorganic Analytes with Maximum Concentrations Above Background					
Aluminum <sup>b</sup>	2/2	200	280	1,050	415
Chromium <sup>b</sup>	1/2	3	ND	30.9	11
Molybdenum <sup>b</sup>	2/2	200	28.9	374	BDL
Organic Analytes with Maximum Concentrations					
None					
Inorganic Analytes with Maximum Concentrations Below Background					
Arsenic	1/2	3	ND	7.8	8
Barium	1/2	16	ND	23.5	122
Cobalt	1/2	4	ND	8.3	26
Copper	2/2	25	4.6	7.5	21
Iron	2/2	100	376	1,180	3,850
Manganese	2/2	15	1,280	2,210	2,630
Nickel	2/2	40	19.4	19.1	38
Selenium	1/2	3	ND	3.5	326
Thallium	2/2	10	5.6	4.0	7
Zinc	2/2	20	32.6	14	88

## Notes:

- <sup>a</sup> off-site laboratory results
- <sup>b</sup> COPC used to calculate risk

## Acronyms/Abbreviations:

- BDL – below detection limits
- COPC – chemical of potential concern
- ND – not detected
- VOC – volatile organic compound

Addendum to the revised PR/draft VSI Report (Jacobs Engineering 1992c), the property is currently used for agriculture. During the SV, a concrete building foundation was discovered and delineated through a geophysical survey.

One round of soil sampling was performed at AS-06 in October and November 1995. A randomly located boring was drilled within each of the four quarters of the area of investigation, and samples were collected from 2.5, 5, and 10 feet bgs, except where groundwater was encountered at less than 10 feet bgs. Groundwater was encountered in three of the four borings at 8 to 10 feet bgs. Because no information was available on the nature of materials, if any, that were stored at AS-06, soil samples were analyzed on-site for VOCs and TRPH and off-site for VOCs, PAH compounds, PCBs, and TAL metals plus molybdenum (Table 5-12). Formal groundwater sampling was not conducted at AS-06. The on-site laboratory did not report VOCs or TRPH above the detection limit in soil or groundwater. The off-site laboratory reported two VOCs (chloroform and methylene chloride) and one PAH (phenanthrene) at concentrations much lower than the PRGs for these compounds. Silver was the only inorganic analyte reported above background. The leaching evaluation conducted as part of the RFA indicated that chloroform has the potential to affect groundwater at concentrations exceeding the tap water PRG. Therefore, groundwater was recommended for evaluation in the RI. The RI leaching evaluation indicated that the 30-year average concentration of chloroform leaching from soil to groundwater will be below the tap water PRG.

### **5.3.3 AS-08, Air-Photo-Identified Storage Area**

AS-08 is located in the central portion of MCAF Tustin east of the main helicopter landing apron. The AOC was identified in an aerial photograph from 1976 and was visible in subsequent photographs taken before 1988 (Jacobs Engineering 1992a). AS-08 was an open storage area, approximately 100 feet by 120 feet, between what is now Dunn Street and Summit Street. The area contained 55-gallon drums that may have held hazardous materials or hazardous wastes. The open storage area was located 130 feet south of the southeastern end of Hangar No. 2. This area is currently covered with grass, and there is no surface expression of the former storage area (Jacobs Engineering 1992c). However, a concrete pad is located at the northern limit of the AOC at the southern edge of Dunn Street.

Two rounds of soil sampling were performed at AS-08 during the SV. During the first round, soil samples were collected at 1, 5, and 10 feet bgs at three boring locations. During the second round, samples were collected at 2, 5, and 10 feet bgs at four additional soil boring locations.

Because no information was available on the nature of materials, if any, stored at AS-08, soil samples were analyzed on-site for VOCs and TRPH and off-site for VOCs, PAH compounds, PCBs, and TAL metals plus molybdenum. Table 5-13 shows the results of soil sampling. Analytes reported at AS-08 included low concentrations of 18 VOCs, 2 PAHs, and 5 metals above background. These chemicals were evaluated by a screening

## Section 5 Site Characteristics

**Table 5-12**  
**COPCs and Range of Concentrations for Analytes Reported in Soil at AS-06<sup>a</sup>**

Analyte	Frequency of Detection	Detection Limit	Range of Concentrations	Units	Background Levels <sup>b</sup>
<b>ON-SITE LABORATORY INDICATOR PARAMETER RESULTS</b>					
TRPH	0/11	10	ND	mg/kg	<sup>b</sup>
VOCs	0/16	6.0 – 25.0	ND	µg/kg	<sup>b</sup>
<b>OFF-SITE LABORATORY RESULTS</b>					
<b>Analytes With Maximum Concentrations Above Background</b>					
None					
<b>Inorganic Analytes With Maximum Concentrations Above Background</b>					
Silver <sup>c</sup>	1/2	0.76	0.81	mg/kg	BDL
<b>Organic Analytes</b>					
<b>Volatile Organic Compounds</b>					
Chloroform <sup>c</sup>	1/1	6.4	1.4	µg/kg	<sup>d</sup>
Methylene chloride <sup>c,e</sup>	1/1	6.4	1.4	µg/kg	<sup>d</sup>
<b>Polynuclear Aromatic Hydrocarbons</b>					
Phenanthrene <sup>c</sup>	1/1	2.8	3.1	µg/kg	<sup>d</sup>
<b>Inorganic Analytes With Maximum Concentrations Below Background</b>					
Arsenic	2/2	10	9.2 – 9.9	mg/kg	17.5
Barium	2/2	200	178 – 179	mg/kg	305
Chromium	2/2	10	25.1 – 28.1	mg/kg	39.2
Lead	2/2	3 – 100	10.5 – 16.2	mg/kg	23.4
Aluminum	2/2	200	23,600 – 26,000	mg/kg	36,300
Beryllium	2/2	5	0.65 – 0.7	mg/kg	1.1
Cobalt	2/2	50	8.3 – 10.2	mg/kg	15.1
Copper	2/2	25	28.9 – 33.1	mg/kg	41.5
Manganese	2/2	15	337 – 492	mg/kg	1,100
Nickel	2/2	40	17.2 – 26.6	mg/kg	27.8
Selenium	2/2	5	1.2 – 1.9	mg/kg	3.7
Thallium	1/2	0.76	1.1	mg/kg	1.6
Vanadium	2/2	50	62.1 – 66.7	mg/kg	80.6
Zinc	2/2	20	99.6 – 117	mg/kg	141

## Notes:

- <sup>a</sup> off-site laboratory results
- <sup>b</sup> background levels = calculated 99th percentile concentration (BNI 1997b)
- <sup>c</sup> COPC used to calculate risk
- <sup>d</sup> background not calculated for organic compounds

(table continues)

**Table 5-12** (continued)

- <sup>e</sup> low concentrations of methylene chloride are frequently the result of laboratory contamination; however, as a conservative measure, these analytes are included in the list of COPCs for this area of concern

## Acronyms/Abbreviations:

BDL— below detection limit

COPC – chemical of potential concern

µg/kg – micrograms per kilogram

mg/kg – milligrams per kilogram

ND – not detected

TRPH – total recoverable petroleum hydrocarbons

VOC – volatile organic compound

risk assessment based on residential and industrial exposure to soil COPCs. Carcinogenic and noncarcinogenic risks caused by COPCs in soil (although above background concentrations) were estimated to be  $2.7 \times 10^{-7}$  and 1.0, respectively. Carcinogenic risks less than  $1 \times 10^{-6}$  and noncarcinogenic risks less than or equal to 1 are considered allowable by U.S. EPA. Therefore, no action was recommended for this site. The AS-08 risk assessment is discussed further in Section 7.4.3. The leaching evaluation conducted as part of the RFA indicated that chloromethane, tetrachloroethane (PCE), and 1,1,2,2-tetrachloroethane had the potential to affect groundwater at concentrations exceeding the tap water PRG. Therefore, groundwater was recommended for evaluation in the RI. The RI leaching evaluation indicated that the 30-year average concentrations of chloromethane, PCE, and 1,1,2,2-tetrachloroethane in soil leaching to groundwater will be below the tap water PRG.

Groundwater was not encountered in any of the borings, and groundwater sampling was not performed. Although groundwater was not investigated at AS-08, the AOC is located within a large VOC plume that originates at an OU-1 site, IRP-3. Therefore, groundwater at AS-08 is being addressed as part of the remedial action for OU-1.

### 5.3.4 AST-02, Air-Photo-Identified Possible Aboveground Storage Tank

AST-02 is located in the western corner of MCAF Tustin. The site was identified in an aerial photograph from 1946 that showed an object less than 30 feet long, which was identified as a possible fuel, petroleum, oils, and lubricants (POL)/chemical tank (Jacobs Engineering 1992a). In a subsequent aerial photograph from 1947, the possible tank was replaced by a dark circular pit identified as a possible burn pit. An object at this same location and a road leading from the AOC are visible in most of the aerial photographs taken before 26 July 1988, at which time the construction of Aircraft Parking Apron No. 4 was under way. The AOC is currently inaccessible to visual inspection, because it is covered by a concrete parking apron (Jacobs Engineering 1992c).

The parking apron, which acts as a barrier to drilling, made soil sampling at AST-02 impractical. Therefore, as an indirect assessment of possible contamination, sampling

## Section 5 Site Characteristics

**Table 5-13**  
**COPCs and Range of Concentrations for Analytes Reported in Soil at AS-08**

Analyte	Frequency of Detection	Detection Limit	Range of Concentrations	Units	Background Levels <sup>9</sup>
<b>ON-SITE LABORATORY INDICATOR PARAMETER RESULTS</b>					
TRPH	6/26	10	13 – 142	mg/kg	b
Trichloroethane	1/26	6	11	µg/kg	b
<b>OFF-SITE LABORATORY RESULTS</b>					
<b>Analytes With Maximum Concentrations Above Background</b>					
None					
<b>Inorganic Analytes With Maximum Concentrations Above Background</b>					
Cadmium <sup>c</sup>	5/22	0.95 – 13	0.98 – 2.0	mg/kg	1.8
Cobalt <sup>c</sup>	22/22	50	5.7 – 18.1	mg/kg	15.1
Manganese <sup>c</sup>	22/22	15	203 – 1,810	mg/kg	1,100
Molybdenum <sup>c</sup>	10/22	3.8 – 4.7	4.6 – 13	mg/kg	10
Thallium <sup>c</sup>	13/22	0.67 – 0.79	0.79 – 2.1	mg/kg	1.6
<b>Organic Analytes With Maximum Concentrations</b>					
<b>Volatile Organic Compounds</b>					
Acetone <sup>c</sup>	10/12	11 – 13	7.6 – 67	µg/kg	b
2-chloroethylvinyl ether <sup>c</sup>	1/12	23 – 26	1.6	µg/kg	b
Chloromethane <sup>c</sup>	1/12	5.7 – 6.5	1.4	µg/kg	b
1,1-dichloroethene <sup>c</sup>	1/12	5.7 – 6.5	1.5	µg/kg	b
1,2-dichlorobenzene <sup>c</sup>	2/12	5.7 – 6.5	1.4 – 1.5	µg/kg	b
1,3-dichlorobenzene <sup>c</sup>	1/12	5.7 – 6.5	1.4	µg/kg	b
1,4-dichlorobenzene <sup>c</sup>	2/12	5.7 – 6.5	1.4	µg/kg	b
2-hexanone <sup>c</sup>	3/12	12 – 13	1.6 – 6.5	µg/kg	b
Methylene chloride <sup>c,d</sup>	4/12	5.7 – 6.5	1.3 – 2.5	µg/kg	b
Methyl ethyl ketone <sup>c,d</sup>	3/12	12 – 13	2.1 – 7.3	µg/kg	b
4-methyl-2-pentanone <sup>c</sup>	2/12	11 – 13	3.5 – 4.7	µg/kg	b
1,1,2,2-tetrachloroethane <sup>c</sup>	2/12	5.7 – 6.5	1.4 – 1.5	µg/kg	b
Tetrachloroethene <sup>c</sup>	2/12	5.7 – 6.4	1.6 – 7	µg/kg	b
Toluene <sup>c</sup>	1/12	5.7 – 6.5	1.3	µg/kg	b
Trichloroethene <sup>c</sup>	4/12	5.7 – 6.3	1.5 – 11	µg/kg	b
Trichlorofluoromethane <sup>c</sup>	1/12	5.7 – 6.5	1.4	µg/kg	b
m,p-xylene <sup>c</sup>	4/12	5.8 – 6.5	1.4 – 2.9	µg/kg	b
o-xylene <sup>c</sup>	2/12	5.7 – 6.5	1.4 – 1.5	µg/kg	b

(table continues)

**Table 5-13** (continued)

Analyte	Frequency of Detection	Detection Limit	Range of Concentrations	Units	Background Levels <sup>a</sup>
Polynuclear Aromatic Hydrocarbons					
Phenanthrene <sup>c</sup>	2/14	2.6 – 26	1.5 – 3.1	µg/kg	<sup>b</sup>
Pyrene <sup>c</sup>	1/14	2.6 – 26	0.64	µg/kg	<sup>b</sup>
Tentatively Identified VOCs					
Unknown 1	1/12	NA	6	µg/kg	<sup>b</sup>
Unknown 2	3/12	NA	10 – 100	µg/kg	<sup>b</sup>
Unknown 3	1/12	NA	300	µg/kg	<sup>b</sup>
<b>Inorganic Analytes With Maximum Concentrations Below Background</b>					
Arsenic	22/22	10 – 200	5.3 – 11.4	mg/kg	17.5
Barium	22/22	200	109 – 234	mg/kg	305
Chromium	22/22	10	20.3 – 34.4	mg/kg	39.2
Chromium (hexavalent)	2/2	0.23 – 0.26	0.044 – 0.084	mg/kg	0.16
Lead	22/22	3	7.5 – 21.1	mg/kg	23.4
Aluminum	22/22	200	18,700 – 31,900	mg/kg	36,300
Antimony	3/22	0.67 – 1	0.84 – 1.1	mg/kg	1.4
Beryllium	22/22	5	0.47 – 1.1	mg/kg	1.1
Copper	22/22	25	19.2 – 38.1	mg/kg	41.5
Nickel	22/22	40	12.4 – 27.8	mg/kg	27.8
Selenium	16/22	0.90 – 0.99	1.1 – 2.0	mg/kg	3.7
Vanadium	22/22	50	41.9 – 72.7	mg/kg	80.6
Zinc	22/22	20	59.9 – 108	mg/kg	1.41

**Notes:**

- <sup>a</sup> background levels = calculated 99th percentile concentration (BNI 1997b)
- <sup>b</sup> background not calculated for organic compounds
- <sup>c</sup> COPC used to calculate risk
- <sup>d</sup> low concentrations of methyl ethyl ketone and methylene chloride are frequently the result of laboratory contamination; however, as a conservative measure, these analytes are included in the list of COPCs for this area of concern

**Acronyms/Abbreviations:**

COPC – chemical of potential concern  
 µg/kg – micrograms per kilogram  
 mg/kg – milligrams per kilogram  
 NA – not applicable  
 TRPH – total recoverable petroleum hydrocarbons  
 VOC – volatile organic compound



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during the SV was limited to groundwater sampling at the downgradient margin of the parking apron. Sampling was conducted on two separate occasions (December 1995 and February 1996) using two temporary wellpoints installed approximately 100 feet apart. The wellpoints were located approximately 250 feet downgradient of the AOC. Groundwater samples were analyzed for VOCs, PAHs, PCBs, and TAL metals, plus molybdenum. Table 5-14 presents the results of groundwater sampling. No organic COPCs were detected, which suggests soil contamination from a possible tank or possible burn pit is not present. Five metals (aluminum, cadmium, chromium, molybdenum, and nickel) exceeded background concentrations. Groundwater was recommended for evaluation in the RI (geochemical evaluation) because the carcinogenic risks resulting from chromium were estimated to be  $4.9 \times 10^{-4}$  and the noncarcinogenic risks were estimated to be 1.3. The RI geochemical evaluation indicated that metals in groundwater are within the naturally occurring range.

### 5.3.5 AST-04, Air-Photo-Identified Storage Unit

AST-04 is located at the southern boundary of MCAF Tustin near Barranca Parkway. The AOC was identified in an aerial photograph from 1966 (Jacobs Engineering 1992a). A possible elevated horizontal tank, approximately 10 feet by 30 feet, was identified in an area under development that is now occupied by the Armed Services Reserve Center.

Two rounds of soil sampling and one round of groundwater sampling were conducted at AST-04 during the SV. During the first round of sampling, soil samples were collected at four boring locations at depths of 1 and 5 feet bgs. Because groundwater was encountered at 7 to 8 feet bgs, no soil samples were collected from borings at 10 feet bgs during the first round of sampling. However, groundwater (grab) samples were collected and subjected to on-site laboratory analysis for VOCs. During the second round of sampling, soil samples were collected at four locations at depths of 1, 5, and 10 feet bgs; groundwater was sampled twice using a temporary wellpoint located on the downgradient side of the AOC.

No historical information is available on the nature of materials, if any, that may have been stored or released at AST-04. However, because this AOC consists of a probable tank, anticipated COPCs were limited to components of fuels, POLs, lubricants, waste oils, and solvents. Therefore, soil samples were analyzed on-site for VOCs and TRPH and at an offsite laboratory for VOCs, PAH compounds, PCBs, and metals (arsenic, barium, cadmium, chromium, lead, and molybdenum). Second-round samples were submitted to an off-site laboratory for metals analysis. During the first round of sampling, groundwater was analyzed at an off-site laboratory for VOCs, PAHs, PCBs, and TAL metals plus molybdenum. During the second round, groundwater was analyzed on-site for VOCs.

Soil and groundwater results are shown in Tables 5-15 and 5-16, respectively. Eight VOCs and 12 PAHs were reported in the soil at AST-04. No organic COPCs were reported in groundwater. Three metals (cadmium, manganese, and molybdenum) were reported in groundwater at concentrations exceeding background. The leaching

**Table 5-14**  
**COPCs and Range of Concentrations for Analytes Reported in Groundwater at AST-02<sup>a</sup>**  
**(units reported in micrograms per liter)**

Analyte	Frequency of Detection	Detection Limit	CONCENTRATIONS			Background Levels <sup>b</sup>
			CAT2WP001		CAT2WP002	
			(Unfiltered)	(Filtered)	(Unfiltered)	
Analytes With Maximum Concentrations Above Background						
Aluminum <sup>c</sup>	4/4	27	73.9	ND	97.5 – 1,540	415
Cadmium <sup>c</sup>	2/4	4	ND	ND	5 – 9.8	3
Chromium <sup>c</sup>	4/4	10	4.5	6.8	7.1 – 88.6	11
Molybdenum <sup>c</sup>	2/4	17	27.9	ND	25	BDL
Nickel <sup>c</sup>	2/4	14	ND	50.3	55.8	38
Inorganic Analytes With Maximum Concentrations Below Background						
Arsenic	2/4	3	7.9	3.4	4.7	8
Barium	3/4	16	82.2	20.4	40.5 – 44.7	122
Antimony	1/4	2–3	ND	4.3	ND	6
Cobalt	3/4	4	ND	9.7	5.4 – 19.1	26
Copper	3/4	3	ND	7.2	3.8 – 18.2	21
Iron	3/4	5	142	ND	119 – 2,470	3,850
Manganese	4/4	15	50.8	153	30.4 – 41.7	2,630
Selenium	4/4	5	32.3	34.1	21.3 – 49	326
Thallium	2/4	3	ND	3.1	6.2	7
Vanadium	1/4	4	ND	ND	7.9	9
Zinc	3/4	3	16.9	ND	14.4 – 15.7	88

**Notes:**<sup>a</sup> off-site laboratory results<sup>b</sup> background levels = calculated 99th percentile concentration (BNI 1997b)<sup>c</sup> COPC used to calculate risk**Acronyms/Abbreviations:**

BDL – below detection limit

COPC – chemical of potential concern

ND – not detected

## Section 5 Site Characteristics

**Table 5-15**  
**COPCs and Range of Concentrations for Analytes Reported in Soil at AST-04**

Analyte	Frequency of Detection	Detection Limit	Range of Concentrations	Units	Background Levels <sup>a</sup>
<b>ON-SITE LABORATORY INDICATOR PARAMETER RESULTS</b>					
TRPH	2/22	10	11 – 13	mg/kg	b
VOCs	0/22	6.0 – 25.0	ND	µg/kg	b
<b>OFF-SITE LABORATORY RESULTS</b>					
<b>Inorganic Analytes With Maximum Concentrations Above Background</b>					
None					
<b>Organic Analytes</b>					
<b>Volatile Organic Compounds</b>					
Acetone <sup>c</sup>	3/11	11 – 13	52 – 100	µg/kg	b
Carbon disulfide <sup>c,d</sup>	2/11	5.3 – 6.3	1.3 – 2.5	µg/kg	b
Carbon tetrachloride <sup>c</sup>	1/11	5.3 – 6.3	1.7	µg/kg	b
Methylene chloride <sup>c,d</sup>	1/11	5.3 – 6.3	1.3	µg/kg	b
Methyl ethyl ketone <sup>c</sup>	1/11	11	20	µg/kg	b
Toluene <sup>c</sup>	4/11	5.5 – 6.3	1.2 – 1.6	µg/kg	b
m,p-xylene <sup>c</sup>	1/11	5.3 – 6.3	3.4	µg/kg	b
o-xylene <sup>c</sup>	1/11	5.3 – 6.3	1.5	µg/kg	b
<b>Polynuclear Aromatic Hydrocarbons</b>					
Acenaphthene <sup>c</sup>	3/11	2.4 – 11	4.8 – 33	µg/kg	b
Anthracene <sup>c</sup>	4/11	2.4 – 5.5	0.56 – 310	µg/kg	b
Benz(a)anthracene <sup>c</sup>	1/11	2.4 – 26	360	µg/kg	b
Benzo(a)pyrene <sup>c</sup>	4/11	2.4 – 5.5	4.3 – 130	µg/kg	b
Benzo(b)fluoranthene <sup>c</sup>	4/11	2.4 – 11	3.5 – 150	µg/kg	b
Benzo(k)fluoranthene <sup>c</sup>	4/11	2.4 – 5.5	2.1 – 79	µg/kg	b
Chrysene <sup>c</sup>	4/11	2.4 – 5.5	6.4 – 470	µg/kg	b
Fluoranthene <sup>c</sup>	4/11	2.4 – 11	5.4 – 1,500	µg/kg	b
Fluorene <sup>c</sup>	2/11	2.4 – 11	86 – 340	µg/kg	b
Naphthalene <sup>c</sup>	1/11	2.4 – 260	27	µg/kg	b
Phenanthrene <sup>c</sup>	4/11	2.4 – 5.5	0.85 – 1,400	µg/kg	b
Pyrene <sup>c</sup>	4/11	2.4 – 5.5	10 – 1,000	µg/kg	b
<b>Inorganic Analytes With Maximum Concentrations Below Background</b>					
Arsenic	22/22	10	2.4 – 11.4	mg/kg	17.5
Barium	22/22	200	32.6 – 214	mg/kg	305
Cadmium	11/22	0.22 – 1.2	0.25 – 1.8	mg/kg	1.8
Chromium	22/22	10	7.8 – 32.5	mg/kg	39.2

(table continues)

**Table 5-15** (continued)

Analyte	Frequency of Detection	Detection Limit	Range of Concentrations	Units	Background Levels <sup>a</sup>
Chromium (hexavalent)	1/2	0.038	0.066	mg/kg	0.16
Lead	22/22	3	2.6 – 12	mg/kg	23.4
Molybdenum	14/22	4 – 4.7	0.46 – 6.3	mg/kg	10

**Notes:**

- <sup>a</sup> background levels = calculated 99th percentile concentration (BNI 1997b)
- <sup>b</sup> background not calculated for organic compounds
- <sup>c</sup> COPC used to calculate risk
- <sup>d</sup> low concentrations of carbon disulfide and methylene chloride are frequently the result of laboratory contamination; however, as a conservative measure, these analytes are included in the list of COPCs for this area of concern

**Acronyms/Abbreviations;**

COPC – chemical of potential concern  
 µg/kg – micrograms per kilogram  
 mg/kg – milligrams per kilogram  
 ND – not detected  
 TRPH – total recoverable petroleum hydrocarbons  
 VOC – volatile organic compound

evaluation conducted as part of the RFA indicated that the concentrations of organic COPCs that could leach from soil to groundwater would be below the tap water PRGs. However, groundwater was recommended for further evaluation in the RI because the noncarcinogenic risk was estimated to be 7.9 due to the presence of metals in groundwater.

The RI used three types of analyses to evaluate the metals data for groundwater at AST-04 and elsewhere throughout the facility. These analyses were illustrated using geochemical association scatter plots, vertical distribution graphs, and aerial distribution maps. The conclusion of the geochemical evaluation was that cadmium, manganese, and molybdenum were detected within their natural distributions at MWA-04. Since the concentrations are naturally occurring, remediation of groundwater is not required. The evaluation of metals is discussed further in Section 5.6, Basewide Groundwater Study.

### 5.3.6 MDA-04, Miscellaneous Disposal Area

MDA-04 is located in the northern portion of MCAF Tustin between McCord Road and Severyns Road next to Calnan Street. The AOC is the area between Buildings 161, 262, and 263 and was identified as a general support equipment parking lot and maintenance area (MCAS Tustin 1996). The northwest side of Building 161 appears to have been an active oil disposal location. Throughout the 1970s and 1980s, fluids and oils were regularly spilled onto the ground.

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**Table 5-16**  
**COPCs and Range of Concentrations for Analytes Reported in Groundwater at AST-04<sup>a</sup>**  
**(units reported in micrograms per liter)**

Analyte	Frequency of Detection	Detection Limit	CONCENTRATIONS	Background Levels <sup>b</sup>
			CAT4WP001	
ON-SITE LABORATORY INDICATOR PARAMETER RESULTS				
VOCs	0/5	3.0 – 12.5	ND	<sup>b</sup>
OFF-SITE LABORATORY RESULTS				
Analytes With Maximum Concentrations Above Background				
Cadmium <sup>c</sup>	1/1	5	8.4	3
Molybdenum <sup>c</sup>	1/1	200	255	BDL
Manganese <sup>c</sup>	1/1	15	10,300	2,630
Inorganic Analytes With Maximum Concentrations Below Background				
Arsenic	1/1	10	8	8
Barium	1/1	200	18.8	122
Chromium	1/1	10	3.3	11
Aluminum	1/1	200	91.6	415
Cobalt	1/1	50	5.4	26
Iron	1/1	100	202	3,850
Nickel	1/1	40	4.6	38
Selenium	1/1	5	4.1	326
Thallium	1/1	10	6.1	7
Zinc	1/1	20	20.4	88

## Notes:

- <sup>a</sup> off-site laboratory results
- <sup>b</sup> background levels = calculated 99th percentile concentration (BNI 1997b)
- <sup>c</sup> COPC used to calculate risk

## Acronyms/Abbreviations:

- BDL – below detection limit
- COPC – chemical of potential concern
- ND – not detected
- VOC – volatile organic compound

A single round of soil and groundwater sampling was conducted at MDA-04 during the SV. Samples were taken from four borings judgmentally located around the margins of buildings. A fifth boring was included to accommodate sampling at a transformer pad. Samples were collected at depths of 1, 5, and 10 feet bgs in all borings.

MDA-04 is located crossgradient to a TCE plume in groundwater at DSS-01 and upgradient from a plume at MMS-05/ST-67. Therefore, two temporary wellpoints were installed and sampled at the AOC: one was installed near a boring location within stained ground at Building 161; the other was located on the downgradient side of the AOC. The wellpoints were screened in the first WBZ. Analytes detected in groundwater included three VOCs and one metal (molybdenum) above background. Although the VOCs were reported at low concentrations, groundwater at MDA-04 is being addressed as part of the OU-1 remedial action because the site is adjacent to a large VOC plume that originates at OU-1 Site IRP-13S.

MDA-04 contains stained areas that may represent releases of waste oils, lubricants, combustion products, and solvents. Components of petroleum products, lubricants, waste oils, and solvents were the expected COPCs. Therefore, all soil samples for each of the five borings were analyzed on-site for VOCs and TRPH and at an off-site laboratory for VOCs, PAH compounds, PCBs, and metals (arsenic, barium, cadmium, chromium, lead, and molybdenum). Groundwater was analyzed for VOCs and metals. Results of soil and groundwater sampling are shown in Tables 5-17 and 5-18, respectively.

VOCs and TRPH were reported in soil samples analyzed by the on-site laboratory. Six VOCs, nine PAHs, and one PCB were also reported in soil samples analyzed by the offsite laboratory. One metal (arsenic) was reported above background. The leaching evaluation conducted as part of the RFA indicated that organic COPCs will leach from soil to groundwater at concentrations below the tap water PRG. However, groundwater was recommended for evaluation in the RI because the carcinogenic risk exceeded a  $1 \times 10^{-6}$  (geochemical evaluation and an evaluation of future impact). The RI geochemical evaluation indicated that metals in groundwater were within the naturally occurring range. The RI evaluated the maximum reported concentration of 1,2-dichloroethane and concluded that it would have negligible future impact. The RI recommended no further action for groundwater.

### **5.3.7 MDA-07, Miscellaneous Disposal Area**

MDA-07 is in the northern portion of MCAF Tustin on Moffett Road, off the northeastern corner of Hangar No. 1 (Building No. 28). The area was reportedly used beginning in 1955 as a blimp and automobile wash area (MCAS Tustin 1996). Historical aerial photographs indicate that Copeland Street has been moved, and the area where runoff and stagnant wastes seeped into the ground is now covered by asphalt.

A single round of soil sampling was conducted at MDA-07 in September 1996. Because of the large size of the area of investigation, the routine sampling strategy was modified

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**Table 5-17**  
**COPCs and Range of Concentrations for Analytes Reported in Soil at MDA-04**

Analyte	Frequency of Detection	Detection Limit	Range of Concentrations	Units	Background Levels <sup>a</sup>
<b>ON-SITE LABORATORY INDICATOR PARAMETER RESULTS</b>					
TRPH	10/16	10	10 – 615	mg/kg	<sup>b</sup>
VOCs	2/16	6.0 – 25.0	Trace	µg/kg	<sup>b</sup>
<b>OFF-SITE LABORATORY RESULTS</b>					
<b>Analytes With Maximum Concentrations Above Background</b>					
Arsenic <sup>c</sup>	16/16	10	2.6 – 21.4	mg/kg	17.5
<b>Organic Analytes</b>					
Volatile Organic Compounds					
Acetone <sup>c</sup>	5/6	39	6.8 – 1,000	µg/kg	<sup>b</sup>
Carbon disulfide <sup>c,d</sup>	2/6	6.3 – 6.4	3.5 – 10	µg/kg	<sup>b</sup>
2-hexanone <sup>c</sup>	3/6	13	7.1 – 50	µg/kg	<sup>b</sup>
Methyl ethyl ketone <sup>c</sup>	3/6	13 – 16	8.7 – 480	µg/kg	<sup>b</sup>
4-methyl-2-pentanone <sup>c</sup>	2/6	13	20 – 63	µg/kg	<sup>b</sup>
Toluene <sup>c</sup>	1/6	6.3 – 6.4	2.8	µg/kg	<sup>b</sup>
Polynuclear Aromatic Hydrocarbons					
Acenaphthene <sup>c</sup>	1/16	11 – 13	1.1	µg/kg	<sup>b</sup>
Anthracene <sup>c</sup>	5/16	5.8 – 6.4	0.54 – 2.1	µg/kg	<sup>b</sup>
Benzo(a)pyrene <sup>c</sup>	5/16	5.8 – 6.4	1.4 – 15	µg/kg	<sup>b</sup>
Benzo(b)fluoranthene <sup>c</sup>	4/16	12 – 13	1.2 – 8.2	µg/kg	<sup>b</sup>
Benzo(k)fluoranthene <sup>c</sup>	4/16	5.8 – 6.4	0.67 – 3.9	µg/kg	<sup>b</sup>
Chrysene <sup>c</sup>	4/16	5.8 – 6.4	1.5 – 12	µg/kg	<sup>b</sup>
Fluoranthene <sup>c</sup>	5/16	12 – 13	1.1 – 13	µg/kg	<sup>b</sup>
Phenanthrene <sup>c</sup>	7/16	5.8 – 6.4	0.53 – 15	µg/kg	<sup>b</sup>
Pyrene <sup>c</sup>	8/16	5.8 – 6.4	0.4 – 15	µg/kg	<sup>b</sup>
Polychlorinated Biphenyls					
Aroclor 1254 <sup>c</sup>	1/16	18 – 34	21	µg/kg	<sup>b</sup>
Tentatively Identified VOCs					
Unknown hydrocarbons	15/6	NA	5 – 200	µg/kg	<sup>b</sup>
Unknowns	14/6	10	6 – 100	µg/kg	<sup>b</sup>
<b>Inorganic Analytes With Maximum Concentrations Below Background</b>					
Barium	16/16	200	64.3 – 257	mg/kg	305
Cadmium	14/16	0.24 – 0.25	0.25 – 0.48	mg/kg	1.8
Chromium	16/16	10	8.5 – 36.5	mg/kg	39.2
Lead	16/16	3	4.9 – 16.5	mg/kg	23.4
Molybdenum	15/16	0.57	1.5 – 8	mg/kg	10

(table continues)

**Table 5-17** (continued)

## Notes:

- <sup>a</sup> background levels = calculated 99th percentile concentration (BNI 1997b)
- <sup>b</sup> background not calculated for organic compounds
- <sup>c</sup> COPC used to calculate risk
- <sup>d</sup> low concentrations of carbon disulfide are frequently the result of laboratory contamination; however, as a conservative measure, this analyte is included in the list of COPCs for this area of concern

## Acronyms/Abbreviations:

COPC – chemical of potential concern  
μg/kg – micrograms per kilogram  
mg/kg – milligrams per kilogram  
NA – not applicable  
TRPH – total recoverable petroleum hydrocarbons  
VOC – volatile organic compound

to collect samples from eight borings. Two randomly located borings were drilled within each of the four quarters of the area of investigation. In each of the borings, samples were collected at depths of 1, 5, and 10 feet bgs. No groundwater was encountered, and no wellpoints were planned or installed for groundwater sampling at the AOC.

Because MDA-07 was a possible blimp and automobile wash area, the materials released were expected to include solvents, POLs, waste oils, and grease. Therefore, soil samples were analyzed on-site for VOCs and TRPH and at an off-site laboratory for VOCs, PAH compounds, PCBs, and metals (arsenic, barium, cadmium, chromium, lead, and molybdenum). Results for soil are shown in Table 5-19.

TCE was reported in 5 of the 25 soil samples analyzed by the on-site laboratory. TCE and four additional VOCs, acetone, Freon 113, methyl ethyl ketone (MEK), and toluene were also reported in soil samples analyzed by the off-site laboratory. One metal (arsenic) was reported above background. The concentration of arsenic also exceeded PRGs. The leaching evaluation conducted as part of the RFA indicated that TCE has the potential to affect groundwater at concentrations exceeding the tap water PRG. Therefore, groundwater was recommended for further leaching evaluation in the RI. The RI leaching evaluation indicated that the 30-year average concentration of TCE leaching from soil to groundwater will be below the tap water PRG.

Groundwater at MDA-07 was recommended for no further action because the RI leaching evaluation showed that site-specific releases from soil to groundwater will not result in excessive concentrations of COPCs in groundwater. However, MDA-07 is located above a groundwater plume associated with IRP-12, an OU-1 site. Therefore, groundwater at MDA-07 is being addressed as part of the remedial action for OU-1.

### 5.3.8 MMS-01, Major Spill Area

MMS-01 is located in the central portion of MCAF Tustin east of the main helicopter landing apron. The AOC comprises two noncontiguous areas resulting from a spill of approximately 3,000 gallons of JP-5 in December 1989 (Jacobs Engineering 1992b). The



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**Table 5-18**  
**COPCs and Range of Concentrations for Analytes Reported in Groundwater at MDA-04<sup>a</sup>**  
**(units reported in micrograms per liter)**

Analyte	Frequency of Detection	Detection Limit	CONCENTRATION		Background Levels <sup>b</sup>
			CMD4WP001	CMD4WP002	
Organic Analytes					
1,2-dichloroethane <sup>c</sup>	1/2	5	1.1	ND	<sup>d</sup>
Molybdenum <sup>c</sup>	2/3	8	8	14.6	BDL
Freon 113 <sup>c</sup>	1/2	10	1.7	ND	<sup>d</sup>
Methyl ethyl ketone <sup>c,e</sup>	2/2	10	4.4	2.5	<sup>d</sup>
Tentatively Identified VOCs					
Unknown phthalate	1/2	NA	ND	6	<sup>d</sup>
Unknown (1)	1/2	NA	ND	20	<sup>d</sup>
Inorganic Analytes With Maximum Concentrations Below Background					
Arsenic	1/3	20	ND – 45.2 <sup>f</sup>	6	8.3
Barium	2/3	200	28.1 – 32	21	122

## Notes:

- <sup>a</sup> off-site laboratory results
- <sup>b</sup> background levels = calculated 99th percentile concentration (BNI 1997b)
- <sup>c</sup> COPC used to calculate risk
- <sup>d</sup> background not calculated for organic compounds
- <sup>e</sup> low concentrations of methyl ethyl ketone are frequently the result of laboratory contamination; however, as a conservative measure, this analyte is included in the list of COPCs for this area of concern
- <sup>f</sup> initial result suspect; upon resampling, result of ND

## Acronyms/Abbreviations:

- BDL – below detection limit
- COPC – chemical of potential concern
- NA – not applicable
- ND – not detected
- VOC – volatile organic compound

**Table 5-19**  
**COPCs and Range of Concentrations for Analytes Reported in Soil at MDA-07**

Analyte	Frequency of Detection	Detection Limit	Range of Concentrations	Units	Background Levels <sup>a</sup>
<b>ON-SITE LABORATORY INDICATOR PARAMETER RESULTS</b>					
TRPH	0/25	10	ND	mg/kg	<sup>b</sup>
Trichloroethene	5/25	6.0 – 25.0	3 – 10.5	µg/kg	<sup>b</sup>
<b>OFF-SITE LABORATORY RESULTS</b>					
<b>Analytes</b>					
Arsenic <sup>c</sup>	7/7	10	5.6 – 17.7	mg/kg	17.5
<b>Organic Analytes</b>					
Acetone <sup>c</sup>	1/7	12 – 13	64	µg/kg	<sup>b</sup>
Methyl ethyl ketone <sup>c,d</sup>	2/7	12 – 13	2.8 – 11	µg/kg	<sup>b</sup>
Toluene <sup>c</sup>	1/7	5.9 – 6.4	4.5	µg/kg	<sup>b</sup>
Trichloroethene <sup>c</sup>	6/7	6.3	4.2 – 32	µg/kg	<sup>b</sup>
Freon 113 <sup>c</sup>	3/7	12 – 13	3.7 – 7.7	µg/kg	<sup>b</sup>
<b>Inorganic Analytes With Maximum Concentrations Below Background</b>					
Barium	7/7	200	134 – 193	mg/kg	305
Cadmium	3/7	0.24 – 0.26	0.27 – 0.56	mg/kg	1.8
Chromium	7/7	10	19.1 – 30.5	mg/kg	39.2
Lead	7/7	3	7.6 – 12.8	mg/kg	23.4
Molybdenum	5/7	0.73 – 0.89	1.4 – 3.6	mg/kg	10

**Notes:**

- <sup>a</sup> background levels = calculated 99th percentile concentration (BNI 1997b)
- <sup>b</sup> background not calculated for organic compounds
- <sup>c</sup> COPC used to calculate risk
- <sup>d</sup> low concentrations of methyl ethyl ketone are frequently the result of laboratory contamination; however, as a conservative measure, this analyte is included in the list of COPCs for this area of concern

**Acronyms/Abbreviations:**

COPC – chemical of potential concern  
µg/kg – micrograms per kilogram  
mg/kg – milligrams per kilogram  
ND – not detected  
TRPH – total recoverable petroleum hydrocarbons

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fuel was released from a refueling truck at a location east of Building 562 and reportedly flowed across the asphalt parking lot in two directions: northward to an unpaved dirt area (MMS-01a) and southward into a storm drain (MMS-01b) (ASI 1990). Much of the fuel was removed, and the contaminated soil was reportedly excavated and disposed off-site. There is no surface expression of the spill, but sampling was conducted as part of the SV to confirm that no COPCs are present in soil in the unpaved dirt area or in the subsurface soil around the storm drain (Jacobs Engineering 1992b).

One round of soil sampling was performed during the SV. Soil borings were randomly located within each of four quarters of the two areas of investigation (eight borings). In each boring, soil samples were collected at 1, 5, and 10 feet bgs, except where groundwater was encountered at less than 10 feet bgs. In MMS-01A, sampling was conducted through the asphalt-paved area as well as in the unpaved area. In MMS-01B, sampling was limited to the portions of the sampling grid outside of the concrete-bermed drain itself. Groundwater was encountered in three of the four borings at MMS-01A and in all four borings at MMS-01B; from each of these borings, a groundwater sample was collected and submitted to an on-site laboratory for analysis. No formal groundwater samples were collected.

Soil and groundwater samples were analyzed on-site for VOCs and TRPH. Selected soil samples were analyzed off-site for VOCs and PAH compounds. Table 5-20 shows the results of soil sampling at MMS-01. Organic COPCs reported in the soil as revealed by off-site laboratory analysis included six PAH compounds and four VOCs. On-site laboratory analysis indicated TRPH in the soil and groundwater, but no VOCs in either medium. The RFA concluded that TRPH, PAH compounds, and VOCs at MMS-01 are sporadically distributed at very low concentrations (i.e., TRPH at 62 mg/kg or less, PAH compounds at 16 µg/kg or less, and VOCs at 26 µg/kg or less). The leaching evaluation conducted as part of the RFA indicated that methylene chloride has the potential to affect groundwater at concentrations exceeding the tap water PRG. Therefore, groundwater was recommended for further leaching evaluation in the RI. The RI leaching evaluation indicated that the 30-year average concentration of methylene chloride leaching from soil to groundwater will be below the tap water PRG. VOCs reported in groundwater samples at MMS-01 are below the MCLs.

### 5.3.9 MWA-03, Former Wash Pad

MWA-03 is located at the western boundary of MCAF Tustin, off Bumblebee Road. The AOC is a former wash pad at the Fuels Branch, operated by Marine Wing Support Squadron (MWSS)-374 for fueling equipment maintenance and inventory (Jacobs Engineering 1992b; SCS 1979). The former wash area consisted of a 40- by 16-foot concrete pad sloped to drains discharging to an oil/water (O/W) separator (TOW-04). The integrity of the concrete pad was poor and cracks were present (Jacobs Engineering 1992b). The unit was decommissioned in 1993, the O/W separator wash was removed, and the former location of the O/W separator was paved over with asphalt (Jacobs

**Table 5-20**  
**COPCs and Range of Concentrations for Analytes Reported in Soil at MMS-01**

Analyte	Frequency of Detection	Detection Limit	Range of Concentrations	Units	Backgrounds Levels <sup>a</sup>
<b>ON-SITE LABORATORY INDICATOR PARAMETER RESULTS</b>					
TRPH	20/20	10	22.0 – 62.0	mg/kg	b
VOCs	0/20	6.0 – 25.0	ND	µg/kg	b
<b>OFF-SITE LABORATORY RESULTS</b>					
<b>Organic Analytes</b>					
Volatile Organic Compounds					
Acetone <sup>c</sup>	9/12	11 – 13	9.4 – 26	µg/kg	b
Methylene chloride <sup>c</sup>	9/12	5.5 – 6.1	2.7 – 13	µg/kg	b
Toluene <sup>c</sup>	1/3	6.5 – 6.7	1.8	µg/kg	b
Polynuclear Aromatic Hydrocarbons					
Benzo(b)fluoranthene <sup>c</sup>	1/13	2.4 – 2.8	4.4	µg/kg	b
Benzo(g,h,i)perylene <sup>c</sup>	1/13	2.4 – 2.8	16	µg/kg	b
Dibenz(a,h)anthracene <sup>c</sup>	1/13	2.4 – 2.8	6.8	µg/kg	b
Indeno(1,2,3-c,d)pyrene <sup>c</sup>	1/13	2.4 – 2.8	11	µg/kg	b
Phenanthrene <sup>c</sup>	6/13	2.4 – 2.8	2.5 – 6	µg/kg	b
Pyrene <sup>c</sup>	2/13	2.4 – 2.8	3.4 – 4.4	µg/kg	b
Tentatively Identified VOCs					
Dimethyldisulfide <sup>c</sup>	1/13	NA	7	µg/kg	b
Unknown (2)	1/13	NA	10 – 20	µg/kg	b

**Notes:**

- <sup>a</sup> background levels = calculated 99th percentile concentration (BNI 1997b)
- <sup>b</sup> background not calculated for organic compounds
- <sup>c</sup> COPC used to calculate risk

**Acronyms/Abbreviations:**

COPC – chemical of potential concern  
µg/kg – micrograms per kilogram  
mg/kg – milligrams per kilogram  
NA – not applicable  
ND – not detected  
TRPH – total recoverable petroleum hydrocarbons  
VOC – volatile organic compound

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Engineering 1992b). However, the area beneath the wash pad was not included in the closure activities for TOW-04,

Two rounds of soil and groundwater sampling were conducted at MWA-03 during the SV. For first-round soil sampling, four borings were judgmentally located where releases could have occurred (e.g., cracks in the pad). Samples were collected at 1, 5, and 10 feet bgs. For second-round sampling, selected boring locations were designed to delimit the extent of the release and included two locations on the downgradient side of the pad, one location upgradient from the pad and one on the eastern margin of the pad. As part of second-round sampling, one temporary wellpoint was installed on the downgradient side of the AOC to monitor for COPCs in groundwater migrating off-site.

MWA-03 is a former vehicle wash pad, and the expected COPCs were limited to components of fuels, lubricants, waste oils, and solvents. Soil samples were submitted for on-site screening analysis of VOCs and TRPH and to an off-site laboratory for analysis of VOCs, PAH compounds, PCBs, and metals (arsenic, barium, cadmium, chromium, lead, and molybdenum). Groundwater was analyzed on-site for VOCs and off-site for VOCs, PAH compounds, PCBs, and TAL metals plus molybdenum. Tables 5-21 and 5-22 present the results for soil and groundwater, respectively.

COPCs reported in the soil at MWA-03 included VOCs, PAHs, one PCB, and metals above background. In addition, TRPH was reported in 8 of 26 soil samples analyzed by the on-site laboratory. Metals were the only COPCs identified in groundwater above background. The leaching evaluation conducted as part of the RFA indicated that VOCs would leach to groundwater at concentrations below the tap water PRG and that metals (arsenic) would leach at concentrations below background. However, groundwater was recommended for evaluation in the RI (geochemical evaluation) because the screening risk assessment indicated a carcinogenic risk greater than  $1 \times 10^{-6}$  and potential adverse systemic effects. The RI geochemical evaluation indicated that metals in groundwater are within the naturally occurring range. No VOCs were reported in groundwater.

Subsequent to the RI, a RCRA action was conducted to remediate soil at MWA-03 (OHM 1998b). During excavation, 285 tons of TRPH- and PAH-contaminated soil were removed, transported, and treated using an on-site thermal desorption unit. Confirmation soil samples were collected from the sidewalls and floor of the excavation for analysis of TPH as diesel and gasoline, PAHs, and VOCs (Table 5-23). Analytical results for the confirmation soil samples verified that all cleanup goals (i.e., PRGs) were met. A screening risk assessment was performed following soil removal using confirmation results and soil boring results outside the excavation area (OHM 2000b). The results of the screening risk assessment for soil indicate a calculated net cancer risk of 0. The hazard index was less than one. The risk assessment for MWA-03 is discussed further in Section 7.

**Table 5-21**  
**COPCs and Range of Concentrations for Analytes Reported in Soil at MWA-03**  
**(prior to removal action)**

Analyte	Frequency of Detection	Detection Limit	Range of Concentraitions	Units	Background Levels <sup>a</sup>
<b>ON-SITE LABORATORY INDICATOR PARAMETER RESULTS</b>					
TRPH	8/26	10	21 – 9,750	mg/kg	<sup>b</sup>
VOCs	0/26	6.0 – 25.0	ND	µg/kg	<sup>b</sup>
<b>OFF-SITE LABORATORY RESULTS</b>					
<b>Analytes With Maximum Concentrations Above Background</b>					
Arsenic <sup>c</sup>	23/23	10	4.5 – 80.7	mg/kg	17.5
<b>Organic Analytes With Maximum Concentrations</b>					
Acetone <sup>c</sup>	5/10	12 – 13	14 – 330	µg/kg	<sup>b</sup>
Benzene <sup>c</sup>	1/10	5.8 – 6.6	2.1	µg/kg	<sup>b</sup>
Carbon disulfide <sup>c,d</sup>	4/10	5.8 – 6.3	1.4 – 7.5	µg/kg	<sup>b</sup>
Ethylbenzene <sup>c</sup>	5/10	5.8 – 6.4	1.2 – 17	µg/kg	<sup>b</sup>
2-hexanone <sup>c</sup>	3/10	12 – 13	2.1 – 33	µg/kg	<sup>b</sup>
Methylene chloride <sup>c,d</sup>	1/10	5.8 – 6.6	1.6 – 3.3	µg/kg	<sup>b</sup>
Methyl ethyl ketone <sup>c</sup>	9/10	12	2.8 – 58	µg/kg	<sup>b</sup>
Tetrachloroethene <sup>c</sup>	5/10	5.8 – 6.3	1.5 – 5.8	µg/kg	<sup>b</sup>
Toluene <sup>c</sup>	6/10	5.8 – 6.3	1.8 – 4.1	µg/kg	<sup>b</sup>
Trichloroethene <sup>c</sup>	3/10	5.8 – 6.3	1.3 – 2.7	µg/kg	<sup>b</sup>
m,p-xylene <sup>c</sup>	6/10	5.8 – 6.3	2.7 – 75	µg/kg	<sup>b</sup>
o-xylene <sup>c</sup>	6/10	5.8 – 6.3	1.4 – 13	µg/kg	<sup>b</sup>
<b>Polynuclear Aromatic Hydrocarbons</b>					
Chrysene <sup>c</sup>	1/10	2.6 – 2,700	1,900	µg/kg	<sup>b</sup>
Fluoranthene <sup>c</sup>	1/10	2.6 – 3,000	1,300	µg/kg	<sup>b</sup>
Naphthalene <sup>c</sup>	7/10	2.6 – 56	27 – 20,000	µg/kg	<sup>b</sup>
Phenanthrene <sup>c</sup>	8/10	2.6 – 56	3.7 – 8,400	µg/kg	<sup>b</sup>
<b>Polychlorinated Biphenyls</b>					
Aroclor 1260 <sup>c</sup>	1/10	14 – 17	27	µg/kg	<sup>b</sup>
<b>Tentatively Identified VOCs</b>					
Acetonitrile <sup>c</sup>	1/10	NA	22	µg/kg	<sup>b</sup>
n-butylbenzene <sup>c</sup>	1/10	NA	150	µg/kg	<sup>b</sup>
n-isotropytoluene <sup>c</sup>	1/10	NA	25	µg/kg	<sup>b</sup>
p-isotropytoluene <sup>c</sup>	3/10	NA	84 – 210	µg/kg	<sup>b</sup>
sec-butylbenzene <sup>c</sup>	1/10	NA	52	µg/kg	<sup>b</sup>

(table continues)

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Table 5-21 (continued)

Analyte	Frequency of Detection	Detection Limit	Range of Concentrations	Units	Background Levels <sup>a</sup>
Substituted benzene 1	1/10	NA	7 – 86	µg/kg	<sup>b</sup>
Substituted benzene 2	1/10	NA	6 – 64	µg/kg	<sup>b</sup>
Substituted naphthalene 1	4/10	NA	27 – 53	µg/kg	<sup>b</sup>
Substituted naphthalene 2	1/10	NA	25	µg/kg	<sup>b</sup>
Substituted naphthalene 3	2/10	NA	27 – 28	µg/kg	<sup>b</sup>
1,2,4-trimethylbenzene <sup>c</sup>	3/10	NA	87 – 320	µg/kg	<sup>b</sup>
1,3,5-trimethylbenzene <sup>c</sup>	2/10	NA	76 – 77	µg/kg	<sup>b</sup>
Unknown	1/10	NA	55	µg/kg	<sup>b</sup>
Unknown hydrocarbon	34/34	NA	9 – 330	µg/kg	<sup>b</sup>
<b>Inorganic Analytes With Maximum Concentrations Below Background</b>					
Barium	23/23	200	74 – 182	mg/kg	305
Cadmium	15/23	1.2 – 1.3	0.28 – 1.6	mg/kg	1.8
Chromium	23/23	10	12.7 – 26.6	mg/kg	39.2
Lead	23/23	3	5.3 – 13.5	mg/kg	23.4
Molybdenum	14/23	4.4 – 5.1	1.1 – 5.3	mg/kg	10

## Notes:

- <sup>a</sup> background levels = calculated 99th percentile concentration (BNI 1997b)
- <sup>b</sup> background not calculated for organic compounds and essential inorganic analytes
- <sup>c</sup> COPC used to calculate risk
- <sup>d</sup> low concentrations of carbon disulfide and methylene chloride are frequently the result of laboratory contamination, however, as a conservative measure, these analytes are included in the list of COPCs for this area of concern

## Acronyms/Abbreviations:

COPC – chemical of potential concern  
 µg/kg – micrograms per kilogram  
 mg/kg – milligrams per kilogram  
 NA – not applicable  
 ND – not detected  
 TRPH – total recoverable petroleum hydrocarbons  
 VOC – volatile organic compound

**Table 5-22**  
**COPCs and Range of Concentrations for Analytes Reported in Groundwater at MWA-03**  
 (units reported in micrograms per liter)<sup>a</sup>

Analyte	Frequency of Detection	Detection Limits	CONCENTRATIONS		Background Levels <sup>b</sup>
			CMW3WP001 (Unfiltered)	CMW3WP001 (Filtered)	
ON-SITE LABORATORY INDICATOR PARAMETER RESULTS					
VOCs	0/1	3–12.5	ND	ND	<sup>b</sup>
Analytes With Maximum Concentrations Above Background					
Aluminum <sup>c</sup>	1/2	27	1,040	ND	415
Arsenic <sup>c</sup>	2/2	10	3.1	26.8	8.3
Cadmium <sup>c</sup>	1/2	4	ND	4.8	2.5
Chromium <sup>c</sup>	2/2	10	33.3	3.2	10.6
Molybdenum <sup>c</sup>	1/2	17	ND	24.7	BDL
Thallium <sup>c</sup>	1/2	3	ND	32.7	7.3
Inorganic Analytes With Maximum Concentration Below Background					
Barium	1/2	16	21.6	ND	122
Antimony	1/2	3	ND	6.1	6.4
Cobalt	1/2	4	7.7	ND	25.6
Copper	1/2	3	4.9	ND	20.6
Iron	2/2	100	1,260	26.3	3,850
Manganese	2/2	15	801	768	2,630
Nickel	1/2	14	24.3	ND	37.5
Selenium	2/2	5	161	199	326
Vanadium	1/2	4	5.1	ND	9.3
Zinc	2/2	20	14.8	31.4	88.2

**Notes:**

- <sup>a</sup> off-site laboratory results
- <sup>b</sup> background levels = calculated 99th percentile concentration (BNI 1997b)
- <sup>b</sup> background not calculated for organic compounds and common ions
- <sup>c</sup> COPC used to calculate risk

**Acronyms/Abbreviations:**

- BDL– below detection limits
- COPC – chemical of potential concern
- ND – not detected
- VOC– volatile organic compound



## Section 5 Site Characteristics

**Table 5-23**  
**Summary of Analytical Results for Confirmation Soil Sampling at MWA-03**

<b>Analyte</b>	<b>Frequency of Detection</b>	<b>Detection Limits</b>	<b>Range of Concentrations</b>	<b>Units</b>	<b>1995/1996 Residential PRGs</b>
<b>Total Recoverable Petroleum Hydrocarbons</b>					
TPH as diesel	2/11	11 – 12	100 – 130	mg/kg	NE
<b>Metals</b>					
Arsenic	11/11		1.5 – 8.3		17.5

Source:  
OHM 1998b

Acronyms/Abbreviations:  
mg/kg – milligrams per kilogram  
NE – not established  
PRG – preliminary remediation goal  
TPH – total recoverable hydrocarbons

#### **5.4 RI SITE IRP-13E, DRUM STORAGE AREA NO. 3**

IRP-13E is located in the northwestern portion of MCAF Tustin between Buildings 41 and 66. The site includes a large stained area (approximately 140 feet by 45 feet) where drums of chemicals were stored. Materials formerly stored in the area include hydraulic fluid, diesel fuel, leaded gasoline, oil, paint stripper, battery acids, and solvents. The area is now paved and was used for parking until the base closed.

IRP-13E was investigated during the SI in 1991 and 1992 (Jacobs Engineering 1993a). The SI conducted at IRP-13E consisted of a soil gas survey, five shallow soil (1 foot bgs) samples, and four groundwater samples collected by HydroPunch.

The RI augmented the by collecting additional soil and groundwater samples. Fifty borings were drilled. The on-site laboratory analyzed 4 duplicates and 67 regular soil samples for VOCs and TRPH. Thirty-eight samples were collected from 2 feet bgs, 11 samples from 7 feet bgs, 11 samples from 12 feet bgs, 3 samples from 21 feet bgs, and 3 samples from 24 feet bgs. Fifty-one samples were sent to an off-site laboratory for confirmation and additional analysis (metals, PAH compounds, VOCs, and PCBs). Three boreholes were advanced to the first WBZ to allow a HydroPunch sample to be collected. Table 5-24 shows soil sampling results. (Subsequent to the RI-IRP-13E was redefined to exclude MDA-06 and MDA-10. Data collected in these areas are not included in Table 5-24.)

Seven groundwater samples were collected during the RI by micropurging temporary wellpoints installed in deeper soil borings. The on-site laboratory screened these samples for VOCs. Because VOCs were not detected, the samples were not sent to the off-site laboratory for analysis.

Petroleum contamination was detected in soil at depths ranging to 2 feet bgs. PCBs, pesticides, PAH compounds, and lead were found in shallow soil. Groundwater collected during the SI contained one SVOC and three metals above SI-defined screening values. The leaching evaluation conducted as part of the basewide groundwater study in the OU-1/OU-2 RI indicated that all soil COPCs would leach to groundwater at concentrations below the tap water PRG.

#### **5.5 ROUTES OF EXPOSURE**

Exposure pathways for the OU-2 IRP sites and AOCs include ingestion, inhalation, and dermal contact with COPCs in soil. (Section 7 summarizes risks due to these routes of exposure). There is currently no exposure pathway for contaminated groundwater at any of the sites, because the water in the first WBZ is not being used. However, groundwater represents a potential route of exposure should water in the first WBZ be used for irrigation or domestic purposes in the future.

Exposure to COPCs can also occur if contaminants in the soil leach to groundwater that is used for irrigation or domestic purposes. The potential for leaching was assessed in the

**Table 5-24**  
**COPCs and Range of Concentrations for Analytes Reported in Soil at IRP-13E**

Analyte	Frequency of Detection	Detection Limit	Range of Concentrations	Units	Background Levels <sup>a</sup>
<b>ON-SITE LABORATORY INDICATOR PARAMETER RESULTS</b>					
TRPH	19/88	10 – 52	14.4 – 3,500	mg/kg	b
VOCs	0/61	6 – 25	ND	µg/kg	b
<b>OFF-SITE LABORATORY RESULTS</b>					
<b>Inorganic Analytes With Maximum concentrations Above Background</b>					
Antimony <sup>c</sup>	1/22	0.61 – 13.4	0.78 – 2.3	mg/kg	1.4
Barium <sup>c</sup>	1/22	89.5	29.5 – 311	mg/kg	305
Copper <sup>c</sup>	1/26	21.4	9.2 – 48.3	mg/kg	41.5
Lead <sup>c</sup>	5/27	9.3 – 10.1	4.5 – 52.3	mg/kg	23.4
Mercury <sup>c</sup>	1/23	0.10 – 0.24	0.20	mg/kg	BDL
Nickel <sup>c</sup>	1/26	14.9 – 23.5	5.7 – 29.1	mg/kg	27.8
Zinc <sup>c</sup>	3/26	3 – 4	23.8 – 521	mg/kg	141
<b>Organic Analytes With Maximum Concentrations</b>					
Polynuclear Aromatic Hydrocarbons					
Anthracene <sup>c</sup>	3/32	2.6 – 2,400	0.93 – 120	µg/kg	b
Benzo(b)fluoranthene <sup>c</sup>	4/32	2.6 – 2,400	390 – 430	µg/kg	b
bis(2-ethylhexyl) phthalate <sup>c</sup>	2/4	396 - 429	440 – 580	µg/kg	b
Naphtalene	1/33	2.6 – 6,500	24	µg/kg	b
Phenanthrene <sup>c</sup>	11/34	2.6 – 2,400	0.72 – 76	µg/kg	b
Volatile Organic Compounds					
Acetone	3/23	10 – 46	3 – 11	µg/kg	b
Methyle ethyl ketone	1/23	10 – 13	9	µg/kg	b
Unknown (TIC)	1	NA	6	µg/kg	b
Pesticides and Polychlorinated Biphenyls					
Aroclor 1260 <sup>c</sup>	6/37	13 – 208	48 – 340	µg/kg	b
alpha-chlordane <sup>c</sup>	3/23	2 – 104	1.0 – 1.3	µg/kg	b
gamma-chlordane <sup>c</sup>	4/22	1.8 – 104	0.74 – 2.1	µg/kg	b
4,4'-DDD <sup>c</sup>	4/22	3.4 – 20.8	1.3 – 60	µg/kg	b
4,4'-DDE <sup>c</sup>	5/23	3.5 – 20.8	1.7 – 80	µg/kg	b
4,4'-DDT <sup>c</sup>	4/19	3.5 – 20.8	17 – 240	µg/kg	b

(table continues)

Table 5-24 (continued)

Analyte	Frequency of Detection	Detection Limit	Range of Concentrations	Units	Background Levels <sup>a</sup>
<b>Inorganic Analytes With Maximum Concentrations Below Background</b>					
Aluminum	22/22	16 – 36	6,010 – 24,400	mg/kg	36,300
Arsenic	27/27	2 – 3	2.6 – 16	mg/kg	17.5
Beryllium	22/26	0.24 – 0.48	0.21 – 0.96	mg/kg	1.1
Cadmium	1/26	0.9 – 2.4	1.3	mg/kg	1.8
Chromium (total)	26/26	3 – 6	5.8 – 33.6	mg/kg	39.2
Cobalt	19/22	5.0 – 5.5	2.0 – 14.3	mg/kg	15.1
Iron	22/22	6 – 12	13,000 – 42,300	mg/kg	44,900
Magnesium	22/22	47 – 66	3,220 – 13,400	mg/kg	19,800
Manganese	22/22	1.0 – 2.0	102 – 650	mg/kg	1,100
Molybdenum	6/22	2.6 – 4.4	3.8 – 6.8	mg/kg	10
Potassium	22/22	600 ! 1,220	1,020 – 4,980	mg/kg	6,910
Selenium	6/26	0.61 – 7.7	0.81 – 2.9	mg/kg	3.7
Sodium	22/22	32 – 70	319 – 1,070	mg/kg	6,320
Thallium	1/26	0.26 – 1.4	1.0	mg/kg	1.6
Vanadium	22/22	3 – 7	22.3 ! 66.6	mg/kg	80.6

## Notes:

- <sup>a</sup> background levels = calculated 99th percentile concentration (BNI 1997b)
- <sup>b</sup> background not calculated for organic compounds
- <sup>c</sup> COPC used to calculate risk

## Acronyms/Abbreviations:

- BDL – below detection limit
- COPC – chemical of potential concern
- DDD – dichlorodiphenyldichloroethane
- DDE – dichlorodiphenyldichloroethene
- DDT – dichlorodiphenyltrichloroethane
- IRP – Installation Restoration Program
- µg/kg – micrograms per kilogram
- mg/kg – milligrams per kilogram
- NA – not applicable
- ND – not detected
- TIC – tentatively identified compound
- TRPH – total recoverable petroleum hydrocarbons
- VOC – volatile organic compound

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Section 5 Site Characteristics

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RFA, ESI, and RI using a leaching evaluation. Net infiltration rates were estimated on the basis of anticipated surface cover indicated in the proposed land-use plan and assumed surface-water application rates. The first step in the leaching evaluation was a conservative screening calculation based on direct and instantaneous partitioning (immediate adsorption and dissolution) into groundwater of maximum soil concentrations. If this conservative screening calculation indicated a potential for groundwater concentrations to exceed regulatory standards (e.g., PRGs, MCLs), then a second step was carried out, using the VLEACH computer model. The VLEACH model estimated adsorption, dissolution, and volatilization in the vadose zone and provided migration rates to groundwater over time. If the VLEACH model indicated an effect on groundwater over regulatory standards, then the site or AOC received further evaluation via a basewide groundwater study in the RI. RFA, ESI, and RI sites were also evaluated further in the RI if: 1) groundwater COPCs were present at concentrations that pose an excess cancer risk greater than  $10^{-5}$  (ESI) or  $10^{-6}$  (RFA); 2) COPCs leaching from soil to groundwater posed an excess cancer risk greater than  $10^{-5}$  (ESI) or  $10^{-6}$  (RFA); or 3) COPCs present in or potentially leached to groundwater posed a noncancer risk greater than 1.

## 5.6 BASEWIDE GROUNDWATER STUDY

The OU-1/OU-2 RI basewide groundwater study provided additional information used to confirm the disposition of the no action sites and AOCs. The portions of the study that impacted the disposition of the no action sites included:

- C a geochemical evaluation of metals in groundwater and
- C a vadose zone fate and transport (leaching) analysis.

The purpose of the geochemical evaluation was to determine the basewide distribution of chemicals naturally occurring in groundwater and surface water. Once this distribution had been established, it was possible to determine whether COPCs at a particular site or AOC were present as a result of site-specific activity or were the result of natural variations present at the installation.

The three types of illustrations used to evaluate the metals data for groundwater are described below.

**Geochemical association scatter plots.** Scatter plots of selected metals versus nitrate, iron, aluminum, and sulfate TDS were generated to help determine whether elevated concentrations of metals that were observed at MCAF Tustin were naturally occurring or due to site-specific activities. For example, at MCAF Tustin, the elevated concentrations of both manganese and molybdenum did not associate with any known contaminant sources, but both closely reflected the distribution of TDS at the facility. Therefore, the geochemical evaluation concluded that the observed distribution of manganese and molybdenum was not caused by contaminant releases but indicated association of a metal with high salt content. Similarly, chromium has an apparent association with iron, with higher iron concentrations corresponding to higher chromium concentrations. The RI

noted that this may result from the presence of soils in which chromite ( $\text{FeCr}_2\text{O}_4$ ) minerals are concentrated and concluded on this basis that the observed chromium distribution in groundwater is naturally occurring.

**Vertical distribution graphs.** Graphs showing concentration versus depth were prepared for the metals that exceeded background in at least one sample. A uniform vertical distribution of metals indicates a naturally occurring element distribution rather than one that resulted from a surface or near-surface release. The vertical distribution graphs indicated that arsenic at IRP-1 appeared to be the result of a site-specific release because several samples with elevated concentrations of arsenic were concentrated within the first WBZ. IRP-1 is being addressed in a separate ROD. The vertical distribution graphs did not identify site-specific releases at any of the sites and AOCs addressed in this ROD.

**Aerial distribution maps.** Concentration distribution maps were developed for selected chemicals to examine their distribution patterns. A random distribution indicates a naturally occurring distribution, while a zoned distribution may indicate an anthropogenic impact if the distribution is related spatially to a contaminant source or sources.

Metals in groundwater at AD-04, AST-02, AST-04, IRP-2, MDA-04, and MWA-03 were evaluated by these means and found to be within natural distributions of metals at MCAF Tustin. As a result, it was concluded that remediation of metals in groundwater was not necessary at these sites and AOCs.

The vadose zone fate and transport (leaching) analysis was performed to determine the maximum and 30-year average concentration (in groundwater) of COPCs that could potentially leach from soil to groundwater. The maximum and 30-year average concentrations were then compared to tap water PRGs to evaluate whether remedial action is necessary to prevent leaching of contaminants in soil to groundwater.

Leaching evaluations were performed during the RI at AD-04, AS-06, AS-08, MDA-07, MMS-01, and IRP-13E. On the basis of a comparison of the maximum and 30-year average concentrations with the PRGs, it was determined that no remedial action was required for soil at these sites and AOCs.

The OU-1/OU-2 RI details the application of the basewide groundwater study to the no action IRP sites and AOCs. Section 7 summarizes the results.

## **Section 6**

# **CURRENT AND POTENTIAL FUTURE SITE AND RESOURCE USES**

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This section discusses the current and reasonably anticipated future land uses, and current and potential groundwater and surface water uses. The site and resource uses determine realistic exposure scenarios in the baseline risk assessment.

## **6.1 LAND USES**

On 02 July 1999, MCAF Tustin was closed, and the Marine Corps' mission at the facility was incorporated into the MCAS Miramar operations in San Diego, California. Access to the base is currently controlled by security services. Utility systems and services are maintained as necessary to provide support for caretaker, lessee, and environmental cleanup operations. The majority of the buildings are unoccupied.

In compliance with the Base Closure Community Redevelopment and Homeless Assistance Act of 1994, an MCAS Tustin SP/RP was developed and approved by the Local Redevelopment Agency (LRA) on 31 October 1996 and updated in September 1998 (The Planning Center 1998). The MCAS Tustin SP/RP comprises a variety of land uses, including residential, commercial, and recreational. Figure 6-1 shows the reuse planned for each portion of the base; Table 6-1 also describes site-specific land reuses.

On 20 September 1997, the Department of Housing and Urban Development (HUD) conditionally approved the Reuse Plan as submitted. In addition to HUD concurrence, Secretary of the Navy approval of the document is needed. This requires prior completion of an environmental document designed to evaluate the environmental impacts associated with the closure and reuse of MCAF Tustin. On 31 December 1997, the DON noticed in the Federal Register formal determination of surplus for the disposal and reuse of MCAF Tustin. The LRA and the United States Marine Corps (USMC) finalized a joint Environmental Impact Statement/Environmental Impact Report in December 1999 (USMC 1999).

## **6.2 GROUNDWATER USES**

MCAF Tustin is located within the Irvine groundwater subbasin, which has been designated by the California RWQCB Santa Ana Region as a public water supply source (RWQCB 1995). The regional aquifer beneath the base is currently a source of municipal drinking water. At present, shallower zones are not used for drinking water because of their generally low yield and poor quality (the shallow groundwater is saline or brackish.) As mentioned in Section 5, the highest concentrations of salt and TDS occur in the first WBZ. The highest TDS concentration reported in groundwater from the first WBZ was 23,000 milligrams per liter. Groundwater containing TDS concentrations of this magnitude is not generally used for public drinking water (RWQCB 1995).

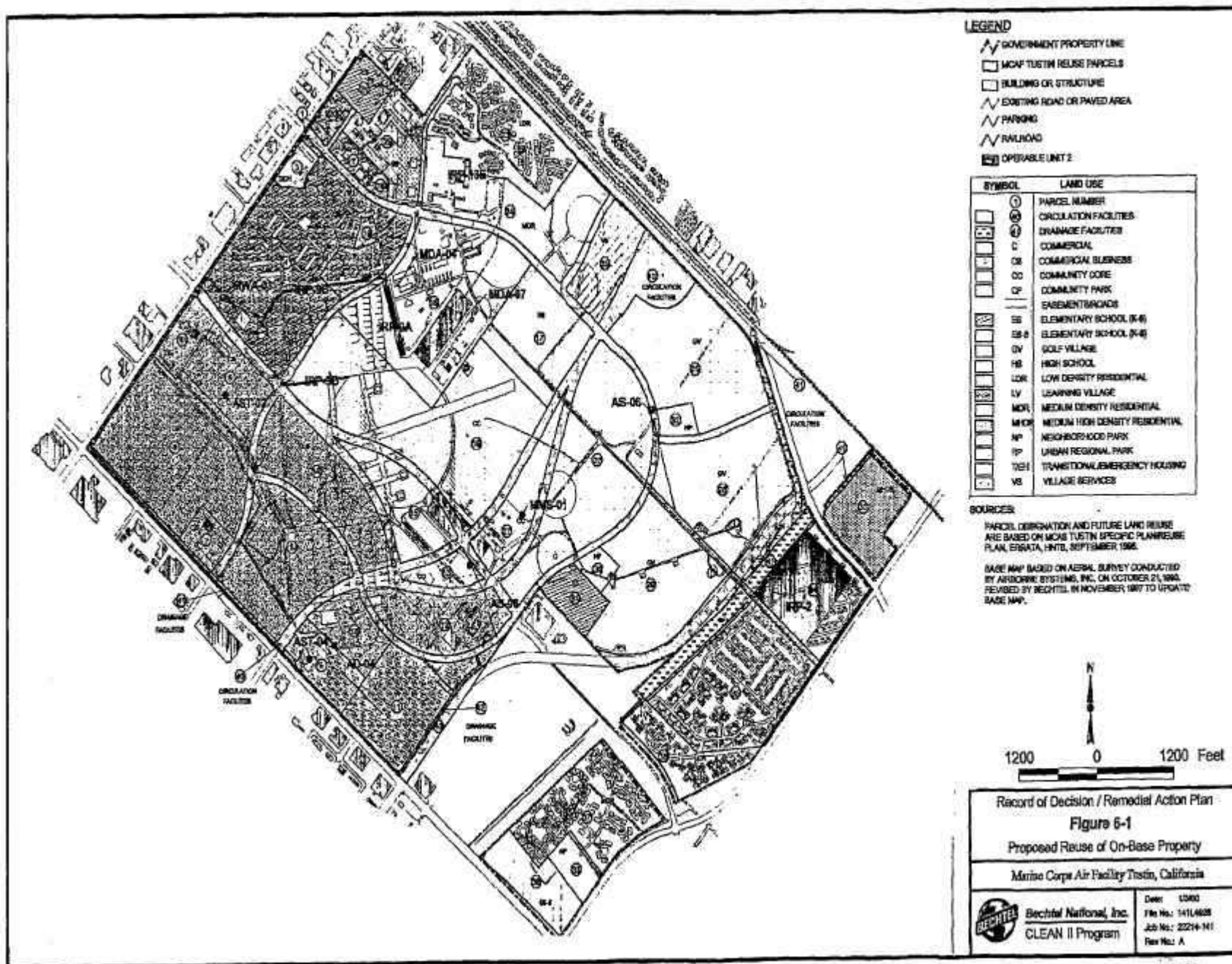
### **6.3 SURFACE-WATER USES**

Several man-made surface-water channels on MCAF Tustin contain water year-round. The channels discharge to San Diego Creek, which ultimately directs surface runoff downstream to Newport Bay.

Several sections of the on-site drainage ditches and portions of Peters Canyon Channel and Santa Ana-Santa Fe Channel were designated as potential wetland by the U.S. Fish and Wildlife Service (USDA 1992). The USACOE designated two drainage areas as jurisdictional wetlands (Durham 1996) (refer to Figure 5-3). In 1999, a wetlands determination was completed to verify the extent and quality of wetland habitat and to provide sufficiently detailed and accurate jurisdictional delineations to support permitting and mitigation planning. As a result of this determination, eight areas were identified to be jurisdictional waters of the United States. Within those jurisdictional waters, a smaller area was determined to be vegetated wetlands/seasonal wetlands (BNI 2000).

No sensitive habitats have been identified at MCAF Tustin. However, the upper Newport Bay Ecological Reserve, approximately 5 miles southwest of the installation, into which Peters Canyon Channel flows, was established in 1975 to preserve and enhance this saltwater marsh ecosystem. Eight species classified by California as either rare or endangered are dependent on the upper Newport Bay. A series of marshy wildlife refuges (approximately 300 acres at UCI) are located approximately 5 miles south of the installation





**Table 6-1  
Current and Proposed Land Uses**

Site/ AOC No.	Current Land Uses or Land Use Prior to Closure	Proposed Future Land Use	Reuse Parcel No.
IRP-2	Prior to closure, IRP-2 was located in an area that housed military personnel and their families.	The proposed land use for the area containing IRP-2 is “low-density residential.”	34
IRP-9	IRP-9 is currently a grass-covered area adjacent to Aircraft Hangar No. 1, IRP-9A was used by helicopter maintenance crews. IRP-9B received drainage from Apron 1.	IRP-9 is located in an area designated for reuse as an urban regional park, training facility, “commercial business,” and a “community core.”	1, 2, 4, 5, 8, 12, 13, 14, 15, 16, 18, 24
IRP-13E	IRP-13E is currently an open paved lot. Prior to closure, the lot was used for storage of discarded equipment such as chopped-up barbed wire, old splintered pontoons, and other debris.	The future land use at IRP-13E is planned as “medium-density residential.”	24
AD-04	AD-04 is an open grassy area adjacent to a dirt road leading past the garage.	AD-04 is located in an area designated for reuse as “commercial business.”	9
AS-06	AS-06 is currently being used for agricultural purposes, and crops are planted over the site.	AS-06 is located in an area designated for reuse as “golf village.”	9
AS-08	AS-08 is currently an unused open grassy area.	AS-08 is located in an area designated for reuse as “community core.”	13
AST-02	AST-02 is currently covered with an 8-inch-thick concrete pad. Prior to closure, this area was used as a parking apron for helicopters.	AST-02 is located in an area designated for reuse as “commercial business.”	5
AST-04	AST-04 is an open grassy area between the road leading to the Armed Services Reserve Center and the center itself. The parcel containing this site has been transferred to the U.S. Department of the Army.	AST-04 is located in an area designated for reuse as “federal property, military.”	9
MDA-04	Prior to closure, MDA-04 was used as a general support equipment parking lot and maintenance area.	MDA-04 is in an area designated for reuse as an “urban regional park.”	18
MDA-07	Prior to closure, MDA-07 was used as an open (self) physical education recreational area.	MDA-07 is in an area designated for reuse as an “urban regional park.”	18
MMS-01	The area containing MMS-01 is currently fenced. Prior to closure, this area served as the main motor pool for MCAF Tustin.	MMS-01 is in an area designated for reuse as “community core.”	27
MWA-03	MWA-03 (wash pad) has been remediated, and the area is currently inactive.	MWA-03 is in an area designated for reuse as a “learning village.”	1

Acronyms/Abbreviations:

AOC – area of concern

IRP – Installation Restoration Program

MCAF – Marine Corps Air Facility

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## Section 7

# SUMMARY OF SITE RISKS

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Human-health risk assessments (HHRAs) were conducted for the no action sites and AOCs using data collected during the ESI, RFA, and RI. The objective of these risk assessments was to determine the likelihood that exposure to chemicals found in soil and/or groundwater poses a threat to human health if no action is taken. The type of risk assessment performed varied depending on the program. Risk evaluations performed under the RFA were based on a screening risk assessment. Risk assessments performed as part of the ESI and RI were conducted under the premise of a baseline risk assessment.

A baseline risk assessment was conducted for IRP-2 and IRP-9A during the ESI. The ESI also included a baseline risk assessment for IRP-2 and IRP-9A under the assumption that localized soil hot spots were removed. A screening risk assessment was conducted for IRP-9B during the PAH apron study (BNI 1998). A screening risk assessment for AOCs AD-04, AS-06, AS-08, AST-02, AST-04, MDA-04, MDA-07, MMS-01, and MWA-03 was conducted during the RFA. A baseline risk assessment was conducted for IRP-13E during the RI. Risks were recalculated at IRP-9 and MWA-03 following soil removal actions at these sites. Results of the IRP-9A risk assessment are contained in a letter report (OHM 2000a); results of the IRP-9B risk assessment are contained in the Closure Report for this site (OHM 2000a). Results of the MWA-03 screening risk assessment are contained in a memorandum titled "Screening Risk Assessment for Site MWA-03 at MCAF, Tustin, CA" (OHM 2000b).

In addition to the assessment conducted for the COPCs identified in soil and groundwater, screening risk assessments were also performed at several sites to evaluate risks associated with potential future groundwater contamination due to the possible vertical migration of COPCs in soil. The evaluation was based on a site-specific fate and transport (leaching) evaluation. Risks were estimated for the COPCs identified with a potential to impact groundwater quality at concentrations exceeding the tap water U.S. EPA PRGs. The HHRA methodology is provided in Section 6 of the ESI Report (BNI 1996a), Section 5 of the RFA Report (BNI 1997b), and Section 7 of the RI Report for OU-1 and OU-2 (BNI 1997a). Corresponding fate and transport analyses are also presented in each of these reports.

Habitat surveys were performed for the OU-2 IRP sites/AOCs in October and November 1994 and February 1995, and it was concluded that there are no suitable wildlife habitats present (BNI 1996i,j). Therefore, no ecological risk assessments were performed for these sites/AOCs.

## 7.1 BASELINE RISK ASSESSMENT APPROACH

The baseline risk assessment approach and the results are discussed below.

### 7.1.1 Contaminant Identification

The procedures used to identify the COPCs to be evaluated in the risk assessment are consistent with the U.S. EPA's Risk Assessment Guidance for Superfund (RAGS) (U.S. EPA 1989) and Interim Final Guidance for Data Usability in Risk Assessment is (U.S. EPA 1990). The COPCs used were contaminants identified in the upper 2 feet of soil, the upper 10 feet of soil, and in groundwater from HydroPunch borings, monitoring

wells, and wellpoints located within the sites and AOCs. All risk assessments used validated off-site laboratory data.

### **7.1.2 Exposure Scenarios**

An exposure assessment identifies the populations at potential risk and the mechanisms by which members of those populations could be exposed to the COPCs in each medium. It is also a process by which the chemical concentrations at the point of exposure and the chemical doses are calculated.

Because MCAF Tustin is a closed facility, the exposure assessment focused on people who might be exposed while living, working, or playing directly on each IRP site or AOC in the future. Exposure of people who live, work, or play in communities surrounding MCAF Tustin is possible through movement of chemical vapors and contaminated dust from the facility to off-facility areas. However, even if no mitigating action is taken, those people, being farther from the sites, will receive less exposure than those who will eventually be spending much of the day on-site.

The HHRA for all OU-2 IRP sites included risk calculated using a residential scenario. This is considered to be the most conservative because of the duration of exposure and number of exposure pathways. Additional exposure scenarios were assumed for most sites depending on proposed future land use (Table 7-1). The HHRA for IRP-2 was performed during the ESI using a residential scenario. The HHRA for IRP-9 was performed during the ESI using residential and recreational scenarios (Table 7-1). The HHRA for IRP-13E was performed during the RI using a residential scenario, an industrial scenario, a recreational scenario, and a construction scenario (Table 7-1).

The exposure assumptions for each of these scenarios are summarized below.

#### **7.1.2.1 RESIDENTIAL SCENARIO**

Under the residential scenario, the resident is assumed to be a person who lives in a house on-site from birth to age 30. (Thirty years is the 90th percentile of time that people in the United States live at one address [U.S. EPA 1989].) It is further assumed that the person never leaves the property except when on vacation, which occurs once a year for 2 weeks, and that beginning at age 7 years, the person spends 2 days a week outdoors and thus handles soil. The concentration of airborne contaminants is assumed to be equal indoors and outdoors. COPCs in soil to 10 feet bgs (or samples taken at depths up to 12 feet bgs if samples were not collected at 10 feet bgs) are treated as being available to the resident, because soil would be excavated to 10 feet for basement and swimming pool construction, and some of the soil from the subsurface may be left on the surface. Water used in the home is assumed to come from a private well that draws water from the shallow aquifer beneath the site. It is unlikely that anyone would install a private well to obtain water for home use (due to the high TDS content, the low yield in the first WBZ, and the availability of municipal drinking water); however, the potential risk presented by the COPCs in groundwater was estimated using exposure conditions associated with residential use of the groundwater as tap water.

## Section 7 Summary of Site Risks

**Table 7-1**  
**Exposure Scenarios for the Human-Health Risk Assessment**

Site/AOC ID*	EXPOSURE SETTING			Construction Worker	Proposed Future Land Use
	Residential	Industrial	Recreational		
ESI Sites					
IRP-2	X				Low-density residential
IRP-9	X		X		Urban regional park, training facility, commercial business, community core
RFA AOCs					
AD-04	X	X			Commercial business
AS-06	X	X			Golf village
AS-08	X	X			Community core
AST-02	X	X			Commercial recreation
AST-04	X	X			Armed services reserve/ commercial business, military
MDA-04	X	X			Urban regional park
MDA-07	X	X			Urban regional park
MMS-01	X	X			Agriculture land/golf village
MWA-03	X	X			Learning village
RI Site					
IRP-13E	X	X	X	X	Medium density residential

## Note:

- \* in general, a baseline risk assessment was conducted for the ESI and RI sites and a screening risk assessment was conducted for the RFA AOCs

## Acronyms/Abbreviations:

- AOC – area of concern  
 ESI – expanded site inspection  
 ID – identifier  
 IRP – Installation Restoration Program  
 RFA – Resource Conservation and Recovery Act (RCRA) facility assessment  
 RI – remedial investigation

Possible exposure pathways examined for the chemicals in near-surface and shallow soil at the no action IRP sites and AOCs were ingestion of soil, inhalation of vapors and dust, and direct contact with the skin. Possible exposure pathways examined for chemicals in groundwater were ingestion of groundwater, inhalation of vapors, and direct contact with the skin. As mentioned previously, the risk assessments for all no action IRP sites and AOCs included risk calculated using a residential scenario, which is considered to be the most conservative.

#### **7.1.2.2 OFFICE WORKER**

If a site is redeveloped for commercial business, the individuals most likely to be exposed would be owners and employees of the businesses. An office worker was chosen to represent business owners and employees. The office worker is a person who works in a commercial building on-site for a period of 25 years, which is an exposure duration recommended for workers in U.S. EPA's RAGS. The person has normal working hours and time off. The concentration of airborne contaminants is assumed to be equal indoors and outdoors. Only COPCs in the upper 2 feet of soil are considered to be available to the office worker. Possible exposure pathways evaluated for COPCs in surface soil at the IRP sites were ingestion of soil, inhalation of vapors and dust, and direct contact with the skin. For the office worker, the groundwater pathway is assumed to be incomplete (i.e., the office worker will not be exposed to groundwater).

#### **7.1.2.3 RECREATIONAL SCENARIO**

Some of the IRP sites are proposed for reuse as urban regional parks. In the recreational setting, the receptor was assumed to be a child taken by an adult to a park to play for 1 hour a day from the age of 2 through 6 years. Two to 6 years old is the upper part of the age range in which soil ingestion is higher than at any other age for people engaged in low to moderately dusty activities. COPCs in the upper 2 feet of soil are considered to be available under a recreational setting. Possible exposure pathways evaluated for COPCs in surface soil at the IRP sites were ingestion of soil, inhalation of vapors and dust, and direct contact with the skin. For the recreational setting, the groundwater pathway is not considered to be complete.

#### **7.1.2.4 CONSTRUCTION WORKER**

The construction worker is defined as an individual engaged in the construction of homes or other buildings that are part of the city of Tustin's redevelopment plans. Hence, the assessment of the construction worker scenario was conducted only for those sites identified with such redevelopment plans. Exposure time and frequency are the same as for the office worker, but exposure duration is assumed to be 1 year. COPCs in the upper 10 feet of soil are considered to be available to the construction worker. Possible exposure pathways evaluated were ingestion of soil, inhalation of vapors and dust, and direct contact with the skin. For the construction worker, the groundwater pathway is assumed to be complete (i.e., the construction worker may be exposed to groundwater).

### 7.1.3 Exposure-Point Concentrations and Dose Estimation

The exposure-point concentration (EPC) is the chemical concentration on which dose was based; it is the concentration of a chemical in the contaminated medium (e.g., soil, groundwater) at the point of contact with a receptor (e.g., resident). Exposure conditions used in the estimation of risk were chosen to represent what is known as “reasonable maximum exposure.” Use of these exposure conditions tends to overestimate risk. This effort to overestimate risk is deliberate; it provides risk managers a margin of safety when making cleanup decisions. The combination of the intake variables, expressing the exposure conditions for each receptor at each site, results in a chronic daily dose. The dose is an estimate of exposure for each pathway.

Risks were calculated by integrating the chronic daily dose with toxicity factors. Toxicity factors are numbers developed by U.S. EPA for each COPC that indicate the toxicity of the chemicals. The toxicity factor for carcinogenic effects is called a cancer slope factor (CSF); the toxicity factor for noncarcinogenic effects is called a reference dose (RfD). Chemicals that show a potential for both carcinogenic and noncarcinogenic health effects are assigned both slope factors and reference doses.

In addition to the U.S. EPA-derived CSFs, Cal-EPA has developed CSFs for a group of carcinogens (Cal-EPA 1994). Following DON policy, both U.S. EPA and Cal-EPA slope factors were used in the estimation of the risk from those chemicals when present. CSFs and RfDs are derived from the results of human epidemiological studies or chronic animal bioassays to which animal-to-human extrapolation have been applied.

For the baseline HHRA performed in the RI, the nominal EPC of the COPCs in the soil at the sites was the 95 percent upper confidence level (UCL) of the mean reported concentrations when the statistical distribution of the concentrations was normal or lognormal. Otherwise, when a statistically valid 95 percent UCL could not be calculated, the highest measured concentration was used as the EPC and treated as an upper bound mean. For groundwater, exposure conditions were based on the maximum concentrations of COPCs in groundwater. Maximum concentrations were used because the groundwater data are limited. Similarly, maximum soil concentrations used to estimate potential groundwater concentrations were based on a fate and transport (leaching) evaluation.

### 7.1.4 Risk Characterization

Excess lifetime cancer risks are determined in the baseline risk assessment by multiplying the intake level and the CSF. Excess lifetime cancer risks are probabilities generally expressed in scientific notation (e.g.,  $1 \times 10^{-6}$  or 1E-6). An excess lifetime cancer risk of  $1 \times 10^{-6}$  indicates that, as a plausible upper bound, an individual has a one in a million chance of developing cancer as a result of site-related exposure to a carcinogen over a 70-year lifetime under the specific exposure conditions at a site. Guidelines for managing cancer risks are promulgated in the NCP (40 *Code of Federal Regulations* 300.430[e][2][i][A][2]). According to these regulations, an excess cancer risk of  $10^{-6}$  is allowable, and excess cancer risks ranging from  $10^{-6}$  to  $10^{-4}$  are considered generally



allowable. Cancer risks greater than  $10^{-4}$  require further evaluation and may indicate a need for remedial action.

Potential concern for noncarcinogenic effects of a single contaminant in a single medium is expressed as the hazard quotient (HQ) (or the ratio of the estimated intake derived from the contaminant concentration in a given medium to the contaminant's RfD). By adding the HQs for all contaminants within a medium or across all media to which a given population may reasonably be exposed, one can generate the hazard index (HI). The HI provides a useful reference point for gauging the potential significance of multiple contaminant exposures within a single medium or across media. U.S. EPA has also established guidelines for noncancer risks. If these guidelines are used, an HI of less than 1 is generally considered protective of human health. If the HI is greater than 1, the chemicals are assessed to determine whether the HI represents an unacceptable noncarcinogenic human-health risk.

#### **7.1.4.1 INCREMENTAL RISK**

Metals are natural components of the earth's crust. Some of the metals are carcinogenic and therefore present a cancer risk at naturally occurring (background) concentrations. Human-caused release of a carcinogenic metal to an environment where the metal already exists does not create risk; it increases risk. The increase is called "incremental risk." For each of the carcinogenic metals identified at the no action sites, background threshold concentrations and incremental cancer risk estimates were calculated.

Incremental carcinogenic risk was estimated by subtracting background threshold risk for metals from their corresponding total lifetime risk. In general, this comparison is applicable only to inorganic contaminants because the organic contaminants analyzed are usually man-made (U.S. EPA 1989) and their background concentrations are zero. The incremental cancer risk values for the carcinogenic metals were combined with the total cancer risk values for the other carcinogens (i.e., organics) to obtain the total risk estimate for each site and AOC. This combined risk is referred to as the incremental lifetime cancer risk.

Incremental risk was estimated only for the carcinogenic metal COPCs. Naturally occurring carcinogenic chemicals present a cancer risk at their background concentrations. Whether background risk is acceptable or is not acceptable, it cannot be reduced. When site operations result in an increase in the concentration of a naturally occurring carcinogen above its background level, risk increases. For any naturally occurring carcinogen found at a concentration above background, it is necessary to estimate the risk presented by the excess amount and use this value in decision making.

Incremental noncancer risk was not calculated for the systemic toxicants because noncarcinogenic effects have thresholds. If the background concentration of a noncarcinogen does not produce an exposure level above the toxicity threshold, it poses no risk of adverse health effects. However, if as a result of site operations the concentration of the noncarcinogen increases above background and reaches a concentration that produces an exposure level above the toxicity threshold, the noncarcinogen will then have a potential for

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causing adverse health effects. The potential for adverse health effects may now be present where it did not previously exist. Thus, with noncarcinogenic effects, it is necessary to estimate the likelihood of systemic effects presented by the total concentration (background plus the amount above background) and to use that estimate in decision making.

#### 7.1.4.2 RISK DRIVERS

Risk drivers were identified for all ESI and RI sites. A risk driver is defined as a COPC that has one or more of the following characteristics:

- ! an individual cancer risk estimate exceeding  $1 \times 10^{-6}$ ;
- ! a cancer risk estimate that is less than  $1 \times 10^{-6}$  but that, when combined with other COPCs with cancer risk estimates less than  $1 \times 10^{-6}$ , causes the sum of the cancer risk estimates to exceed  $1 \times 10^{-6}$ ;
- ! an HI larger than 1.0; or
- ! an HI that is less than 1.0 but that, when combined with COPCs with the same mechanisms of toxic action and hazard indices also less than 1.0, causes the sum of the hazard indices to be larger than 1.0.

### 7.2 SCREENING RISK ASSESSMENT APPROACH

A screening risk assessment was used for the RFA AOCs to conservatively estimate the potential risk posed by COPCs at a site. A screening risk assessment was also performed for IRP-9B before the non-time-critical removal action. The screening risk assessment was performed on the combined highest measured concentrations of COPCs identified in soil (i.e., cumulative risk) within the boundary of the AOC site. All assessments for the AOCs were performed using validated off-site laboratory data.

COPCs in soil were screened against the most current U.S. EPA PRGs and/or Cal-modified PRGs published by U.S. EPA Region IX for chemicals in residential and industrial soil by calculating the ratio of the PRGs and the COPC concentration in soil. The residential scenario is considered to be the most conservative because of the duration of exposure and number of exposure pathways. The PRGs for soil are based on exposure by soil ingestion, inhalation of airborne soil (dust), inhalation of chemical vapors released from soil (if volatile compounds are present), and dermal contact with soil. Worst-case risks were estimated using the highest measured concentration in the calculation of the ratios.

The ratios were used to derive a worst-case HI for each COPC and a worst-case cancer risk value for each carcinogenic COPC. For each risk category (carcinogenic or noncarcinogenic), the risk values of the individual COPCs were summed to obtain an estimate of total noncancer risk and total cancer risk. The same approach for identifying risk drivers used in the baseline risk assessment was used for the screening risk assessment (Section 7.1.4.2).

### 7.3 EXPANDED SITE INSPECTION SITES

Table 7-2 summarizes quantitative incremental cancer risk estimates, HIs (noncancer risk), and risk drivers associated with the COPCs at the ESI sites.

#### 7.3.1 IRP-2, Oil Disposal Area

Human-health risks at IRP-2 were evaluated in the ESI through a baseline risk assessment based on a residential (soil and groundwater) scenario. IRP-2 is a site where a soil hot spot was identified. The hot spot was a localized area where PAH compounds were found at concentrations totaling more than 10,000 µg/kg in near-surface soil. In June 1997, the DON completed a non-time-critical removal action for this localized area. The first entry for IRP-2 on Table 7-2 shows the estimated risk based on concentrations of COPCs reported in soil during the ESI. The last entry for IRP-2 was calculated in the ESI based on the removal of the soil within the hot spot. Under these conditions, incremental cancer risk due to exposure to soil is within the range considered generally allowable by U.S. EPA. Noncancer risk exceeds the threshold limit of 1.0. The primary contributors to risk are metals (arsenic, manganese, and aluminum). However, the results of a geochemical evaluation performed during the ESI indicate that the concentrations of metals in soil at IRP-2 are within the range of naturally occurring variations of metals at MCAF Tustin (i.e., not resulting from site-specific base operations). Also, the ESI vadose zone transport model indicated that soil COPCs would not migrate to groundwater at concentrations exceeding tap water PRGs. Therefore, soil at IRP-2 was recommended for no further action.

The incremental cancer risk associated with groundwater at IRP-2 was quantified in the ESI at  $9.2 \times 10^{-4}$  and the noncancer risk at 58. The primary risk drivers were metals (arsenic, molybdenum, selenium). Because the groundwater cancer and noncancer risk estimates exceeded the guidelines established by U.S. EPA, groundwater at this site was evaluated further in the OU-1/OU-2 RI. The RI evaluated COPCs in groundwater throughout the facility and concluded that the metals in the groundwater at IRP-2 are within the range of naturally occurring variations of metals at MCAF Tustin. Therefore, risks in groundwater were not due to site-specific base operations. Based on this evaluation, groundwater at IRP-2 was recommended for no further action.

#### 7.3.2 IRP-9, Hangar No. 1 Line Shacks and Apron 1

Human-health risks at IRP-9 were evaluated in the ESI for IRP-9A through a baseline risk assessment based on a residential (soil and groundwater) and recreational scenario, and in the PAH Apron Study for IRP-9B through a screening risk assessment. IRP-9A is a site where two soil hot spots were identified. The hot spots were localized areas where PAH compounds were found at concentrations totaling up to 6,900 µg/kg (of benzo[a]pyrene) in near-surface soil. Between July 1997 and September 1997, the DON completed a removal action for IRP-9A. The first entry for IRP-9A on Table 7-2 shows the estimated risk based on concentrations of COPCs reported in soil during the ESI. The last entry for IRP-9A was calculated after the removal of the soil within the hot spots (BNI 1998b).

**Table 7-2**  
**No Action Sites - Summary of Human-Health Risk Results for the ESI Sites**

IRP Site	ESI EVALUATION											RI EVALUATION	CLOSURE REPORT EVALUATION <sup>A</sup>	
	Soil								Groundwater				Evaluation Rationale <sup>e</sup> / Evaluation Results	Soil After Non-Time-Critical Removal Action
	Baseline Risk Assessment <sup>b</sup>						ESI Fate and Transport Analysis/Geochemical Evaluation <sup>c</sup>			Baseline Risk Assessment <sup>b</sup>		Residential Risk Assessment <sup>f</sup> / Risk Driver		
	Residential Risk/ Risk Drivers		Industrial Risk/ Risk Drivers		Recreational Risk/ Risk Drivers		Evaluation	Risk Assessment <sup>d</sup> / COPCs		Residential Risk/ Risk Driver		Residential Risk Assessment <sup>f</sup> / Risk Driver		
	Cancer Risk <sup>g</sup>	HI	Cancer Risk	HI	Cancer Risk <sup>g</sup>	HI		Cancer Risk	HI	Cancer Risk	HI		Cancer Risk	HI
IRP-2	1.0 x 10 <sup>-4</sup> Arsenic Benzo(a)pyrene	2.9 Manganese Arsenic Aluminum	NA	NA	NA	NA	<ul style="list-style-type: none"><li>Leaching evaluation (vadose zone transport model) indicates that all COPCs are below the tap water PRG.</li><li>Geochemical evaluation indicates that metals in soil (maganese) are within the naturally occurring range and not the result of base operations.</li></ul>	NA	NA	9.2 x 10 <sup>-4</sup> Arsenic	58 Molybdenum Arsenic Selenium	<ul style="list-style-type: none"><li>Groundwater was recommended for evaluation in the RI (geochemical evaluation) due to the existing carcinogenic and noncarcinogenic risks as determined by the ESI groundwater screening risk assessment.</li><li>The RI geochemical evaluation indicates that metals in groundwater are within the naturally occurring range. Thus, risks are not due to site-specific activities.</li><li>It is unlikely that ground water would be used for drinking water purposes<sup>h</sup>.</li><li>Groundwater was recommended for no further action in the RI.</li></ul>	1.0 x 10 <sup>-5</sup> Arsenic Benzo(a)pyrene	2.6 Manganese Arsenic Aluminum
IRP-9A	4.7 x 10 <sup>-4</sup> (T) 4.4 x 10 <sup>-4</sup> (I) Benzo(a)pyrene Dibenz(a,h)anthracene Arsenic Benzo(a)anthracene Benzo(k)fluoranthene Benzo(b)fluoranthene	1.1 Trichloro- ethene Arsenic	NA	NA	2.9 x 10 <sup>-5</sup> (T) Benzo(a)pyrene Dibenz(a,h)anthracene Benzo(a)anthracene Benzo(k)fluoranthene Benzo(b)fluoranthene	0.0 26 No ne	<ul style="list-style-type: none"><li>Leaching evaluation (vadose zone transport model) indicated that 12 COPCs in soil have the potential to impact groundwater at concentrations exceeding the MCLs and/or PRGs.</li><li>Groundwater modeling used to verify leaching evaluation indicates that cyanide may impact groundwater above its MCL in the future. Cyanide reported in vadose zone soil is found within the area to be remediated as part of the removal action for IRP-9A.</li></ul>	NA	NA	1.8 x 10 <sup>-5</sup> Methylene chloride Trichloroethene 1,1,2,2-PCA 1-4-dichlorobenzene	0.65 None	<ul style="list-style-type: none"><li>Groundwater was recommended for no further action in the ESI.</li></ul>	4.0 x 10 <sup>-6</sup> (T)	<1
IRP-9B <sup>i</sup>	Subarea 1: 2.45 x 10 <sup>-4</sup> Subarea 3: 1.27 x 10 <sup>-4</sup>	Subarea 1: 0.02204 Subarea 3: 0.01147	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Subarea 1: 1.2 x 10 <sup>-6</sup> (I) Subarea 3: 1.5 x 10 <sup>-6</sup> (I)	Subarea 1: <1 Subarea 3: <1

(table continues)

**Table 7-2** (continued)

Notes:

- <sup>a</sup> risk assessment for IRP-2 conducted assuming hot spot had been removed (BNI 1996a); risk assessments for IRP-9A and IRP-9B conducted following non-time-critical removal action (BNI 1998b; OHM 2000a)
- <sup>b</sup> risk estimates presented are based on baseline risk assessment calculations
- <sup>c</sup> fate and transport analyses performed in the ESI to ascertain whether COPCs in soil represent a potential future release to groundwater; a leaching evaluation procedure quantified the potential future release to groundwater
- <sup>d</sup> a screening risk assessment was performed only on those soil chemicals identified by the ESI leaching evaluation as having the potential to affect groundwater at a concentrations above the tap water PRG
- <sup>e</sup> RI risk based on the fate and transport analysis results; sites addressed were those reported to have groundwater risks greater than  $1 \times 10^{-6}$ . The assessment was limited to the residential receptor. Risks were based on a 30-year average concentration
- <sup>f</sup> risk estimates presented are based on screening risk assessment for IRP-2 and baseline risk assessment calculations for IRP-9A and IRP-9B
- <sup>g</sup> first estimate is the total cancer risk (T), the second estimate is the incremental cancer risk (I); for sites where the total and the incremental cancer risk are identical, the estimate listed represents both the total and the incremental cancer risk (T/I); incremental cancer risk
- <sup>h</sup> estimates quantified by subtraction of background cancer risk for the carcinogenic metals from the total cancer risk; the risk drivers presented are those associated with the incremental cancer risk
- <sup>i</sup> ground water in the first water-bearing zone is of poor quality, and the yield is low  
screening risk evaluation conducted before removal action in PAH Apron Study (BNI 1998a)

Acronyms/Abbreviations:

- COPC – chemical of potential concern
- ESI – expanded site inspection
- HI – hazard index
- (I) – incremental cancer risk
- IRP – Installation Restoration Program
- MCL – maximum contaminant level
- NA – not applicable
- PAH – polynuclear aromatic hydrocarbon
- PCA – tetrachloroethane
- PRG – preliminary remediation goal
- RI – remedial investigation
- (T) – total cancer risk

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Following the removal action at IRP-9A, the excess cancer risk was  $4.0 \times 10^{-6}$  for the resident adult and the noncancer risk was less than 1.0.

The incremental cancer risk associated with groundwater at IRP-9A was quantified in the ESI at  $1.8 \times 10^{-5}$  and the noncancer risk was less than 1. The primary risk drivers were methylene chloride, TCE, 1,1,2,2-tetrachloroethane (PCE), and 1,4-dichlorobenzene. A fate and transport analysis performed for IRP-9A indicated that cyanide in the vadose zone soil has the potential to impact groundwater at concentrations exceeding the MCL. However, the cyanide detected in the vadose zone soil was found within the area to be remediated as part of the removal action at IRP-9A. Therefore, subsequent to the removal action at IRP-9A, no further action was recommended for soil or groundwater (BNI 1996a; OHM 2000a). Although groundwater at IRP-9 does not require remediation because no site-specific releases occurred, the site is located adjacent to a large VOC plume that originates at an OU-1 site, IRP-13S. Therefore, groundwater at IRP-9 is being addressed under the remedial action for OU-1.

During the removal action at IRP-9A, two additional areas with PAH-contaminated surface soil were identified as requiring remediation. These areas were subsequently designated as IRP-9B (BNI 1998). A screening risk assessment was performed as part of the PAH Apron Study (BNI 1998) to evaluate risks prior to the removal action at IRP-9B. The results are shown in Table 7-2. Following the non-time-critical removal action, a baseline risk assessment was conducted using analytical results for each final confirmation sample from IRP-9B (OHM 2000a). Using a residential scenario, an incremental excess cancer risk of  $1.2 \times 10^{-6}$  was calculated for Subarea 1 of IRP-9B, and an incrementalexcess cancer risk of  $1.5 \times 10^{-6}$  was calculated for Subarea 3 of IRP-9B (OHM 2000a). PAHs were the primary COPCs. The main risk driver was benzo(a)pyrene, which contributed from 58 to 67 percent of the excess risk. No individual chemical contributed more than  $1 \times 10^{-6}$  to the excess cancer risk. The noncancer risk at IRP-9B was less than 1 before and after the removal action (BNI 1998; OHM 2000b). These levels are within the range considered to be generally allowable by U.S. EPA.

The future land use at IRP-9A and IRP-9B is planned to be a combination of urban regional park, training facility, commercial business, and community core (potential residential). Given the wide range of the future land development, the conservative receptor of a resident was chosen. As noted above, under the residential scenario, the excess cancer risk was  $4.0 \times 10^{-6}$  (IRP-9A),  $1.2 \times 10^{-6}$  (IRP-9B, Subarea 1), and  $1.5 \times 10^{-6}$  (IRP-9B, Subarea 3). Because the excess cancer risks calculated on the basis of residual concentrations of chemicals present after the removal actions at IRP-9A and IRP-9B were within the generally allowable risk range, a risk management decision to recommend no further action for soil was made based on the results of the risk evaluation and the following site-specific conditions.

- The conservative nature of the baseline risk assessment assumes that a resident will live at the site for 30 years and be exposed to chemicals down to 10 feet bgs for 50 weeks each year.

- The residual excess cancer risks for a residential scenario were only slightly greater than  $1 \times 10^{-6}$ , a value considered allowable by U.S. EPA.
- There is no potential for future release to groundwater at concentrations exceeding water quality criteria because of the low mobility of PAHs and their affinity to remain in the soil.

## 7.4 RFA AOCs

Table 7-3 summarizes quantitative incremental cancer risk estimates, HIs (noncancer risk), and risk drivers associated with the COPCs at the RFA sites.

### 7.4.1 AOC AD-04, Air-Photo-Identified Possible Disposal Trench

Human-health risks as AD-04 were evaluated during the RFA through a screening risk assessment based on a residential (soil and groundwater) and an industrial (soil) scenario (Table 7-3). Under both scenarios, total excess carcinogenic risks caused by COPCs in soil are within the range considered generally allowable by U.S. EPA. Under the residential scenario, the incremental excess cancer risk was  $1.5 \times 10^{-6}$ . Beryllium was responsible for 70 percent of this risk. Aroclor 1260 was responsible for 16 percent of the excess cancer risk under the residential scenario, but the risk associated with Aroclor 1260 was less than  $1 \times 10^{-6}$ . Under the industrial scenario, the incremental excess cancer risk was less than  $1 \times 10^{-6}$ . Noncarcinogenic risks from exposure to soil COPCs are below the threshold of 1.0.

Because the excess cancer risks for soil at AD-04 were within the generally allowable risk range, a risk management decision to recommend no further action for soil was made on the basis of results of the risk evaluation and the following site-specific conditions.

- Although the highest measured concentration of beryllium exceeded the PRG, the distribution of concentrations exceeding the PRG was generally limited to 10 feet bgs.
- The results of the fate and transport analysis indicated a potential release of chloroform to groundwater at concentrations exceeding water-quality criteria; however, the risk is within the allowable range.
- The existing or future risk to human health resulting from the presence of the COPCs in soil, based on proposed future land use as commercial business, is within the allowable range.

A leaching evaluation performed for the RFA identified one soil COPC (chloroform) that had the potential to affect groundwater at a concentration above the tap water PRG. Because the modeled potential future release concentration for chloroform exceeded the tap water PRG, a screening risk assessment for this COPC in groundwater was conducted. The results of the risk assessment for chloroform (Table 7-3) indicate that incremental cancer risk is within the range considered generally allowable by U.S. EPA and the noncarcinogenic risk is below the threshold of 1.0. However, because the cancer risk exceeded  $10^{-6}$ , soil leaching potential was investigated further during the RI.

**Table 7-3**  
**No Action Sites - Summary of Human-Health Risk Results for the RFA AOCs**

AOCs	RFA EVALUATION								RI EVALUATION		CLOSURE REPORT EVALUATION			
	Soil						Groundwater							
	Screening Risk Assessment				RFA Fate and TRANSPORT Analysis <sup>a</sup>				Screening Risk Assessment		Basewide Groundwater Study <sup>b</sup>		Soil After RCRA Action	
	Residential Risk/ Risk Drivers		Industrial Risk/ Risk Drivers		Evaluation	Screening Risk Assessment <sup>c,d</sup> / COPCs		Residential Risk/ Risk Drivers		Evaluation Rationale/Evaluation Results		Residential Risk Assessment		
	Cancer Risk <sup>e</sup>	HI	Cancer Risk	HI		Cancer Risk	HI	Cancer Risk	HI			Cancer Risk	HI	
AD-04	9.3 x 10 <sup>-6</sup> (T) 1.5 x 10 <sup>-6</sup> (I) Beryllium Aroclor 1260	0.69 None	1.3 x 10 <sup>-6</sup> (T) 2.5 x 10 <sup>-7</sup> (I) None	0.009 None	Leaching evaluation indicates that chloroform has the potential to affect groundwater at concentrations exceeding the tap water PRG.	5.6 x 10 <sup>-6</sup> Chloroform	0.015 Chloroform	1.9 x 10 <sup>-4</sup> (T) 1.3 x 10 <sup>-4</sup> (I) Chromium VI	2.3 Molybdenum	<ul style="list-style-type: none"><li>Groundwater was recommended for evaluation in the RI (geochemical evaluation and a leaching evaluation) due to the existing carcinogenic and noncarcinogenic risks as determined by the RFA groundwater screening risk assessment.</li><li>RI geochemical evaluation indicates that metals in groundwater are within the naturally occurring range<sup>f</sup>.</li><li>RI leaching evaluation indicates chloroform in soil (30-year average) leaching to groundwater will be below the tap water PRG.</li><li>Groundwater was recommended for no further action in the RI.</li></ul>	NA	NA		
AS-06	2.8 x 10 <sup>-9</sup> None	0.002 None	1.3 x 10 <sup>-9</sup> None	<0.001 None	Leaching evaluation indicates that chloroform has the potential to affect groundwater at concentrations exceeding the tap water PRG.	5.6 x 10 <sup>-6</sup> Chloroform	0.015 Chloroform	NA <sup>g</sup>	NA <sup>g</sup>	<ul style="list-style-type: none"><li>Groundwater was recommended for evaluation in the RI (leaching evaluation) due to a potential future release to groundwater from chloroform in soil (as determined by the RFA fate and transport analysis) with possible health risk.</li><li>RI leaching evaluation indicates chloroform in soil (30-year average) leaching to groundwater will be below the tap water PRG.</li><li>Groundwater was recommended for no further action in the RI.</li></ul>	NA	NA		
AS-08	2.7 x 10 <sup>-7</sup> (T) 6.7 x 10 <sup>-8</sup> (I) None	1.0 None	2.0 x 10 <sup>-8</sup> None	0.064 None	Leaching evaluation indicates that chloromethane, PCE, and 1,1,2,2-tetrachloroethane have the potential to affect groundwater at concentrations exceeding the tap water PRG.	6.4 x 10 <sup>-6</sup> Chloromethane PCE 1,1,2,2-tetrachloroethane	0.033 Chloromethane PCE 1,1,2,2-tetrachloroethane	NA <sup>g</sup>	NA <sup>g</sup>	<ul style="list-style-type: none"><li>Groundwater was recommended for evaluation in the RI (leaching evaluation due to a potential future release to groundwater from chloromethane, PCE, and 1,1,2,2-tetrachloroethane in soil (as determined by the RFA fate and transport analysis) with possible health risk.</li><li>RI leaching evaluation indicates chloromethane, PCE, and 1,1,2,2-tetrachloroethane in soil leaching to groundwater (30-year average) leaching to groundwater will be below the tap water PRG.</li><li>Groundwater was recommended for no further action in the RI.</li></ul>	NA	NA		
AST-02	NA <sup>h</sup>	NA <sup>h</sup>	NA <sup>h</sup>	NA <sup>h</sup>	NA <sup>h</sup>	NA <sup>h</sup>	NA <sup>h</sup>	5.5 x 10 <sup>-4</sup> (T) 4.9 x 10 <sup>-4</sup> (I) Chromium VI <sup>i</sup>	1.3. Cadmium Chromium VI <sup>i</sup>	<ul style="list-style-type: none"><li>Groundwater was recommended for evaluation in the RI (geochemical evaluation) due to the existing carcinogenic and noncarcinogenic risks (as determined by the RFA groundwater risk assessment).</li></ul>	NA	NA		

(table continues)



Table 7-3 (continued)

AOCs	RFA EVALUATION									RI EVALUATION		CLOSURE REPORT EVALUATION	
	Soil						Groundwater						
	Screening Risk Assessment				RFA Fate and TRANSPORT Analysis <sup>a</sup>			Screening Risk Assessment		Basewide Groundwater Study <sup>b</sup>		Soil After RCRA Action	
	Residential Risk/ Risk Drivers		Industrial Risk/ Risk Drivers		Evaluation	Screening Risk Assessment <sup>c,d</sup> /COPCs		Residential Risk/ Risk Drivers		Evaluation Rationale/Evaluation Results		Residential Risk Assessment	
	Cancer Risk <sup>e</sup>	HI	Cancer Risk	HI		Cancer Risk	HI	Cancer Risk	HI		Cancer Risk	HI	
AST-02 (cont.)										<ul style="list-style-type: none"><li>RI geochemical evaluation indicates that metals in groundwater are within the naturally occurring range<sup>f</sup>.</li><li>AST-02 was recommended for no further action in the RI.</li></ul>	NA	NA	
AST-04	3.7 x 10 <sup>-6</sup> (T) 3.2 x 10 <sup>-6</sup> (I) Benzo(a)pyrene Benz(a)anthracene Benzo(b)fluorathene	0.002 None	7.7 x 10 <sup>-7</sup> (T) 7.0 x 10 <sup>-7</sup> (I) None	<0.001 None	Leaching evaluation indicates that the organic COPCs are below the tap water PRG.	NA	NA	NA <sup>j</sup>	7.9 Manganese Molybdenum	<ul style="list-style-type: none"><li>Groundwater was recommended for evaluation in the RI (geochemical evaluation) due to the existing noncarcinogenic risk (as determined by the RFA groundwater risk assessment.)</li><li>RI geochemical evaluation indicates that metals in groundwater are within the naturally occurring range<sup>f</sup>.</li><li>Groundwater was recommended for no further action in the RI.</li></ul>	NA	NA	
MDA-04	5.7 x 10 <sup>-5</sup> (T) 1.1 x 10 <sup>-5</sup> (I) Arsenic	0.99 None	9.0 x 10 <sup>-6</sup> (T) 1.7 x 10 <sup>-6</sup> (I) Arsenic	0.058 None	Leaching evaluation indicates that the organic COPCs are below the tap water PRG.	NA	NA	9.2 x 10 <sup>-6</sup> 1,2-dichloroethane	0.083 None	<ul style="list-style-type: none"><li>Groundwater was recommended for evaluation in the RI (geochemical evaluation and an evaluation of future impact) due to the existing carcinogenic risk (as determined by the RFA groundwater risk assessment.)</li><li>The RI geochemical evaluation indicates that metals in groundwater are within the naturally occurring range<sup>f</sup>.</li><li>The RI evaluated the maximum reported concentration of 1,2-DCA and concluded that it would have negligible future impact.</li><li>The RI recommended no further action for groundwater.</li></ul>	NA	NA	
MDA-07	4.7 x 10 <sup>-5</sup> (T) 5.3 x 10 <sup>-7</sup> (I) None	0.81 None	7.4 x 10 <sup>-6</sup> (T) 8.5 x 10 <sup>-8</sup> (I) None	0.047 None	Leaching evaluation indicates that TCE has the potential to affect groundwater at concentrations exceeding the tap water PRG.	9.4 x 10 <sup>-6</sup> TCE	0.41 TCE	NA <sup>g</sup>	NA <sup>g</sup>	<ul style="list-style-type: none"><li>Groundwater was recommended for evaluation in the RI (leaching evaluation) due to a potential future release to groundwater from TCE in soil (as determined by the RFA fate and transport analysis).</li><li>The RI leaching evaluation indicates TCE in soil (30-year avarage) leaching to groundwater will be below the tap water PRG.</li></ul>	NA	NA	
MMS-01	1.4 x 10 <sup>-7</sup> None	<0.001 None	3.3 x 10 <sup>-8</sup> None	<0.001 None	Leaching evaluation indicates that methylene chloride has the potential to affect groundwater at concentrations exceeding the tap water PRG.	1.4 x 10 <sup>-6</sup> Methylene chloride	<0.001 Methylene chloride	NA <sup>i</sup>	NA <sup>i</sup>	<ul style="list-style-type: none"><li>Groundwater was recommended for evaluation in the RI (leaching evaluation) due to a potential future release to groundwater frommethylene chloride in soil as determined by the RFA fate and transport analysis.</li><li>The RI leaching evaluation indicated methylene chloride (30-year avarage) leaching from soil to groundwater will be below the tap water PRG.</li></ul>	NA	NA	

(table continues)

Table 7-3 (continued)

AOCs	RFA EVALUATION									RI EVALUATION	CLOSURE REPORT EVALUATION		
	Soil						Groundwater				Soil After RCRA Action		
	Screening Risk Assessment				RFA Fate and TRANSPORT Analysis <sup>a</sup>			Screening Risk Assessment		Basewide Groundwater Study <sup>b</sup>		Residential Risk Assessment	
	Residential Risk/ Risk Drivers		Industrial Risk/ Risk Drivers		Evaluation	Screening Risk Assessment <sup>c,d</sup> / COPCs		Residential Risk/ Risk Drivers		Evaluation Rationale/Evaluation Results		Residential Risk Assessment	
	Cancer Risk	HI	Cancer Risk	HI		Cancer Risk	HI	Cancer Risk	HI		Cancer Risk	HI	
MWA-03 <sup>m</sup>	2.1 x 10 <sup>-4</sup> (T) 1.7 x 10 <sup>-4</sup> (I) Arsenic	3.7 Arsenic	3.4 x 10 <sup>-5</sup> (T) 2.6 x 10 <sup>-5</sup> (I) Arsenic	0.21 None	Leaching evaluation indicates that VOCs are below the tap water PRG and that metals (arsenic) are below background.	NA	NA	8.1 x 10 <sup>-4</sup> (T) 5.5 x 10 <sup>-4</sup> (I) Arsenic Chromium	16 Thallium Arsenic	<ul style="list-style-type: none"><li>Groundwater was recommended for evaluation in the RI (geochemical evaluation) due to the existing carcinogenic and noncarcinogenic risks (as determined by the RFA groundwater risk assessment).</li><li>Based on a review of the RI geochemical evaluation, metals in groundwater are within the naturally occurring range<sup>f</sup>.</li><li>The RI recommended no further action for groundwater.</li></ul>	4.65 x 10 <sup>-5</sup> (T) 0 (I)	<1	

## Notes:

- <sup>a</sup> fate and transport analysis performed in the RFA to ascertain whether COPCs in soil represent a potential future release to groundwater; a leaching evaluation procedure quantified the potential future release to groundwater
- <sup>b</sup> geochemical evaluation and fate and transport analysis performed in the RI to assess COPCs in groundwater
- <sup>c</sup> risk estimates presented are based on screening risk assessment calculations
- <sup>d</sup> a screening risk assessment was performed only on those soil chemicals identified by the RFA leaching evaluation as having the potential to affect groundwater at a concentrations above the tap water PRG
- <sup>e</sup> first estimate is the total cancer risk (T), the second estimate is the incremental cancer risk (I); for sites where the total and the incremental cancer risk are identical, the estimate listed represents both the total and the incremental cancer risk
- <sup>f</sup> estimates quantified by subtraction of background cancer risk for the carcinogenic metals from the total cancer risk; the risk drivers presented are those associated with the incremental cancer risk
- <sup>g</sup> risks are not due to site-specific activities
- <sup>h</sup> groundwater sampling was not conducted
- <sup>i</sup> no soil sampling was conducted, therefore there are no data to identify COPCs in soil, and no fate and transport analysis was conducted
- <sup>j</sup> chromium is assumed to be hexavalent
- <sup>k</sup> no carcinogenic COPCs were identified
- <sup>l</sup> no fate and transport analysis was conducted because the initial release occurred near the water table
- <sup>m</sup> the arsenic HI is higher than expected for the whole area because the highest concentration was used to calculate the HI; arsenic was reported in only one sample at a concentration above the background level
- subsequent to the RFA soil risk assessment, a soil removal action was completed at MWA-03

## Acronyms/Abbreviations:

AOC – area of concern  
 COPC – chemical of potential concern  
 HI – hazard index  
 (I) – incremental cancer risk  
 NA – not applicable  
 PCA – tetrachloroethane  
 PRG – preliminary remediation goal  
 RCRA – Resource Conservation and Recovery Act  
 RFA – RCRA facility assessment  
 RI – remedial investigation  
 (T) – total cancer risk  
 TCE – trichloroethene  
 VOC – volatile organic compound

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**Section 7 Summary of Site Risks**

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The results of the RFA groundwater screening risk assessment indicate that the concentrations of the groundwater COPCs are high enough to cause noncarcinogenic and carcinogenic effects (Table 7-3). The carcinogenic COPC accounting for most of the cancer risk was chromium. Molybdenum was identified as the COPC accounting for the majority of the groundwater noncancer risk. Based on these results, groundwater at AD-04 was recommended for further evaluation during the RI.

The RI further evaluated COPCs in soil and groundwater through a geochemical evaluation and leaching analysis. The results of the geochemical evaluation indicated that the concentrations of metals in the groundwater are within the range of naturally occurring variations of these metals at MCAF Tustin. This indicates that the presence of these COPCs at AD-04 is probably not the result of site-related activities. The leaching analysis estimated that the 30-year average groundwater concentration of chloroform in the first WBZ would be below the tap water PRG. Hence, soil COPCs do not have the potential to adversely affect the groundwater. Based on this evaluation, the RI Report recommended groundwater at AD-04 for no further action.

#### **7.4.2 AOC AS-06, Air-Photo-Identified Possible Temporary Storage Unit**

Human-health risks at AS-06 were evaluated in the RFA through a screening risk assessment based on residential and industrial exposure to soil COPCs. Groundwater sampling was not conducted at AS-06 (Table 7-3). Carcinogenic and noncarcinogenic risks from COPCs in soil are within the range considered allowable by U.S. EPA. Based on this evaluation, soil at AS-06 was recommended for no further action.

A leaching evaluation performed in the RFA identified one soil COPC (chloroform) that had the potential to affect groundwater at a concentration above the tap water PRG. Because the modeled potential future release concentration for chloroform exceeded the tap water PRG, a screening risk assessment for this COPC in groundwater was conducted in the RFA. The results of the risk assessment (Table 7-3) indicate that the cancer risk is within the range considered generally allowable by the U.S. EPA. Noncarcinogenic risks are estimated below the threshold limit of 1.0. However, because the incremental cancer risk exceeded  $10^{-6}$ , soil leaching potential was investigated further during the RI.

Groundwater at AS-06 was evaluated further in the RI through leaching analysis under the basewide groundwater modeling study. This analysis estimated that the 30-year average groundwater concentration of chloroform in the first WBZ would be below the tap water PRG. Based on this evaluation, the RI Report recommended groundwater at AS-06 for no further action.

#### **7.4.3 AOC AS-08, Air-Photo-Identified Storage Area**

Human-health risks at AS-08 were evaluated in the RFA through a screening risk assessment based on residential and industrial exposure to soil COPCs. Groundwater sampling was not conducted at AS-08 (Table 7-3). Carcinogenic and noncarcinogenic

risks due to COPCs in soil were within the range considered allowable by U.S. EPA. Based on this evaluation, soil at AS-08 was recommended for no further action.

A leaching evaluation performed in the RFA identified three VOCs (1,1,2,2-PCA, chloromethane, and PCE) as having the potential to affect groundwater at a concentration above tap water PRGs. Because the modeled potential future release concentration for these VOCs exceeded the tap water PRG, a screening risk assessment for these VOCs in the groundwater was conducted. The results of the risk assessment (Table 7-3) indicate that cancer risk is within the range considered generally allowable by U.S. EPA. Noncarcinogenic risks are below the threshold limit of 1.0. However, because the cancer risk exceeded  $10^{-6}$ , the soil leaching potential was investigated further in the RI.

Groundwater at AS-08 was evaluated further during the RI through a leaching analysis under the basewide groundwater modeling study. This analysis estimated that the 30-year average groundwater concentration of 1,1,2,2-PCA, chloromethane, and PCE in the first WBZ would be less than two times the residential PRGs for these compounds. Because the estimated concentrations were only slightly greater than the PRGs, the RI recommended that further action was not necessary to prevent COPCs in soil from migrating to groundwater at AS-08. Although groundwater at AS-08 does not require remediation because no site-specific releases occurred, the site is located within a large VOC plume that originates at an OU-1 site, IRP-3. Therefore, groundwater at AS-08 is being addressed under the remedial action for OU-1.

#### **7.4.4 AOC AST-02, Air-Photo-Identified Possible Aboveground Storage Tank**

Because of the presence of a parking apron that covers the site and acts as a barrier to drilling, soil sampling was not conducted at AST-02. Groundwater samples were collected at the edge of the apron, downgradient of the AOC, as an indirect measure of possible soil contamination. Therefore, human-health risks at AST-08 were evaluated during the RFA through a residential screening risk assessment based on COPCs in groundwater at a downgradient location. Results indicate that both carcinogenic and noncarcinogenic risks exceed the range considered generally allowable by U.S. EPA (Table 7-3). Risk drivers include chromium (hexavalent) and cadmium. No VOCs were reported in the groundwater. Based on this assessment, groundwater at AST-02 was recommended for further evaluation in the RI Report.

Metals in groundwater at AST-02 were evaluated further during the RI through a geochemical evaluation. This evaluation demonstrated that the concentrations of chromium and cadmium in groundwater at the AOC are within the range of naturally occurring variation of these metals at MCAF Tustin. This indicates that the presence of these COPCs at AST-02 did not result from site-related activities. Based on this evaluation, the RI recommended AST-02 for no further action.

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### 7.4.5 AOC AST-04, Air-Photo-Identified Storage Unit

Human-health risks at AST-04 were evaluated during the RFA through a screening risk assessment based on residential (soil and groundwater) and industrial (soil) scenarios (Table 7-3). Incremental carcinogenic risks caused by COPCs in soil are within the range considered generally allowable by U.S. EPA. Under the residential scenario, the incremental excess cancer risk was  $3.2 \times 10^{-6}$ . Benzo(a)pyrene was the main risk driver, contributing 66 percent of the excess cancer risk. No other chemical contributed more than  $1 \times 10^{-6}$  to the excess cancer risk. Under the industrial scenario, the incremental excess cancer risk was less than  $1 \times 10^{-6}$ . Noncarcinogenic risks from exposure to soil COPCs are below the threshold of 1.0. Additionally, a leaching analysis performed for the RFA did not identify any soil COPC that represents a potential future release to groundwater at concentrations exceeding background levels and PRGs.

Because the excess cancer risks for soil at AST-04 were within the generally allowable risk range, a risk management decision to recommend no further action for soil was made based on the results of the risk evaluation and the following site-specific conditions.

- Benzo(a)pyrene was reported at above-PRG concentrations in only one sample at 1 foot bgs.
- The remaining COPCs in soil do not present an unacceptable excess cancer risk.
- There is no potential for future release to groundwater at concentrations exceeding water-quality criteria.

Three groundwater COPCs were identified in RFA samples. None were carcinogenic. However, the total HI was 7.9; manganese and molybdenum are the primary noncarcinogenic risk drivers. Because the HI exceeded 1, groundwater was recommended for further evaluation during the RI.

Metals in groundwater were evaluated further in the RI through a geochemical evaluation under the basewide groundwater modeling study. This evaluation indicated that the concentrations of metals in groundwater at AST-04 are within the range of naturally occurring variations of these metals at MCAF Tustin. This indicates that the presence of these COPCs at AST-04 did not result from site-related activities. Therefore, no further action was recommended for groundwater at this AOC.

### 7.4.6 AOC MDA-04, Miscellaneous Disposal Area

Human-health risks at MDA-04 were evaluated during the RFA through a screening risk assessment based on residential (soil and groundwater) and industrial (soil) scenarios (Table 7-3). Incremental cancer risks caused by COPCs in soil were within the range considered generally allowable by U.S. EPA. Under the residential scenario, the incremental excess cancer risk was  $1.1 \times 10^{-5}$ . Arsenic was the main risk driver, contributing  $1.0 \times 10^{-5}$  of the excess cancer risk under this scenario. No other chemical contributed more than  $1 \times 10^{-6}$  to the excess cancer risk. Arsenic was also the risk driver for the incremental cancer risk under the industrial scenario. Noncarcinogenic risks from

exposure to soil COPCs are below the threshold of 1.0. Additionally, a leaching analysis performed for the RFA did not identify any soil COPC that represents a potential future release to groundwater at concentrations exceeding background levels and PRGs.

Because the excess cancer risks for soil at AST-04 were within the generally allowable risk range, a risk management decision to recommended no further action for soil was made based on the results of the risk evaluation and the following site-specific conditions.

- Organic COPCs do not contribute to the excess cancer risk.
- The risk driver, arsenic, is found only at 10 feet bgs. The occurrence of arsenic at this location does not appear to be related to a release.
- There is no potential for a release from soil to groundwater at concentrations exceeding water-quality criteria.

The RFA screening risk assessment results for groundwater indicated that incremental cancer risks due to groundwater COPCs were within the range considered generally allowable by U.S. EPA, 1,2-dichloroethane (DCA) was the only risk driver. However, because the incremental cancer risk due to 1,2-DCA exceeded  $10^{-6}$ , groundwater at MDA-04 was recommended for further evaluation in the RI.

COPCs in groundwater were evaluated further in the RI through a geochemical evaluation (for metals) and an evaluation of future impact (for 1,2-DCA). The results of the geochemical evaluation performed during the RI indicate that the concentrations of metals (molybdenum) in groundwater at MDA-04 are within the range of naturally occurring variations of metals at MCAF Tustin. The RI also evaluated the maximum reported concentration of 1,2-DCA and concluded that it would have negligible future impact. Therefore, the RI Report recommended no further action for groundwater at MDA-04. Although groundwater at MDA-04 does not require remediation because no site-specific releases occurred, the AOC is adjacent to a large VOC plume at an OU-1 site, IRP-13S. Therefore, the groundwater at MDA-04 is being addressed under the remedial action for OU-1.

#### **7.4.7 AOC MDA-07, Miscellaneous Disposal Area**

Human-health risks at MDA-07 were evaluated during the RFA through a screening risk assessment based on residential and industrial exposure to soil COPCs (Table 7-3). Groundwater sampling was not conducted at MDA-07. Incremental cancer risks and noncancer risks due to COPCs in soil are within the range considered allowable by U.S. EPA. Based on this evaluation, soil at MDA-07 was recommended for no further action.

A leaching analysis performed for the RFA identified TCE in soil as having the potential to affect groundwater at a concentration above the tap water PRG. Arsenic also had the potential to affect groundwater above the tap water PRG but below the background concentration. Therefore a screening risk assessment was performed only for the modeled TCE concentration. The results of the risk assessment (Table-3) indicate that

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Section 7 Summary of Site Risks

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cancer and noncancer risks are within the range considered generally allowable by U.S. EPA. However, because the cancer risk exceeded  $10^{-6}$ , leaching potential was investigated further in the RI.

The potential future release of COPCs in soil to groundwater was evaluated further in the RI through a leaching analysis. This analysis indicated that the 30-year average concentration for TCE is less than the tap water PRG. Based on the results of this analysis, the RI recommended that further action was not necessary to prevent COPCs in soil from migrating to groundwater at MDA-07. Although groundwater at MDA-07 does not require remediation because no site-specific releases occurred, the AOC is located adjacent to a large VOC plume that originates at an OU-1 site, IRP-12. Therefore, groundwater at MDA-07 is being addressed under the remedial action for OU-1.

#### **7.4.8 AOC MMS-01, Major Spill Area**

Human-health risks at MMS-01 were evaluated in the RFA through a screening risk assessment based on residential and industrial exposure to soil COPCs. Groundwater sampling was not conducted at MMS-01. Incremental cancer risks and noncancer risks due to COPCs in soil are within the range considered allowable by U.S. EPA (Table 7-3). Therefore, no further action was recommended for soil at this site.

A leaching analysis performed in the RFA identified one COPC (methylene chloride) that had the potential to affect groundwater at a concentration above the tap water PRG. Because the modeled potential future release concentration for methylene chloride exceeded the tap water PRG, a screening risk assessment for this COPC in groundwater was conducted. The results of the screening risk assessment (Table 7-3) indicate that cancer and noncancer risks are within the range considered generally allowable by U.S. EPA. However, because the cancer risk exceeded  $10^{-6}$ , leaching potential was investigated further in the RI.

The potential future release of COPCs in soil to groundwater at MMS-01 was evaluated further in the RI through a leaching analysis. This analysis estimated that the groundwater concentration of methylene chloride in the first WBZ would exceed the PRG for less than 3 years. Because the PRG exceedances are not large, do not persist, and are unlikely to impact zones where water is potentially used for beneficial purposes, the RI recommended that further action was not necessary to prevent COPCs in soil from migrating to groundwater at MMS-01.

#### **7.4.9 MWA-03, Former Wash Pad**

Human-health risks at MWA-03 were evaluated in the RFA through a screening risk assessment based on residential (soil and groundwater) and industrial (soil) scenarios. Results indicate that, under the industrial scenario, incremental cancer risks are within the range considered generally allowable by U.S. EPA and noncancer risks are below the threshold level of 1.0 (Table 7-3). However, under the residential scenario, cancer and noncancer risks associated with soil exceeded levels considered generally allowable by

U.S. EPA. Arsenic accounts for the majority of both cancer and noncancer risks reported for the soil media. Based on this risk evaluation, designated areas of soil at MWA-03 were recommended for a RCRA removal action. This action was completed in December 1997, and as shown in the last entry for MWA-03 in Table 7-3, soils at MWA-03 no longer present an unacceptable human-health risk. Based on this RCRA removal action, soils at MWA-03 were recommended for no further action. The results of the screening risk assessment conducted on soil remaining at MWA-03, after the RCRA action, indicate that total excess cancer risks are  $4.65 \times 10^{-5}$ , but incremental cancer risks are 0, and the hazard index for noncancer risks are less than 1 (OHM 2000b).

A fate and transport analysis conducted during the RFA indicates no potential future release of soil COPCs to groundwater at concentrations exceeding tap water PRGs and background levels. Because no COPCs were predicted to leach to the groundwater at concentrations that exceed PRGs and background levels, a screening risk assessment for potential impacts to groundwater was not performed for the RFA.

The RFA risk-screening results for groundwater indicated that both cancer and noncancer groundwater risks exceed U.S. EPA guidelines. Arsenic and chromium are the risk drivers for cancer risks. Arsenic and thallium, are the risk drivers for noncancer risks. Based on the results of the RFA screening risk assessment, groundwater at MWA-03 was recommended for further evaluation during the RI.

COPCs in groundwater were evaluated further in the RI through geochemical analysis. The results of the analysis indicate that the concentrations of metals (arsenic, chromium, and thallium) in groundwater are within the range of naturally occurring variation of these metals at MCAF Tustin. This indicates that the presence of these COPCs at MWA-03 did not result from site-related activities. Based on the results of the geochemical analysis, the RI Report recommended no further action for groundwater at MWA-03.

## **7.5 RI SITE IRP-13E**

Human-health risks were evaluated in the RI baseline risk assessment at IRP-13E for four land-use scenarios: residential, industrial (office worker), construction, and recreational (park user) (Table 7-4). Risks were evaluated by exposure to COPCs in soil. The assessment did not address exposures to groundwater. (The off-site laboratory did not analyze groundwater samples because the on-site laboratory did not identify VOCs). Incremental cancer soil risks evaluated under these four scenarios were within the range considered allowable or generally allowable by U.S. EPA. Noncancer risks were below the threshold level of 1.0.

The future land use at IRP-13E is planned to be medium-density residential. The primary receptor is a resident. The excess cancer risk posed by COPCs in soil, based on the residential scenario, is estimated to be  $1.3 \times 10^{-5}$ . The risk drivers are Aroclor 1260 and benzo(b)fluoranthene, which contribute  $1.1 \times 10^{-5}$  and  $1.3 \times 10^{-6}$ , respectively. Because the excess cancer risk is within the generally acceptable risk range, the DON made a risk



**Table 7-4**  
**No Action Sites - Summary of Human-Health Risk Results for RI Site IRP-13E**

IRP Site	SOIL								SURFACE WATER		GROUNDWATER				BASEWIDE GROUNDWATER STUDY	
	Residential Risk <sup>a</sup> / Risk Drivers		Industrial Risk <sup>a</sup> / Risk Drivers		Construction Risk <sup>a</sup> / Risk Drivers		Recreational Risk <sup>a</sup> / Risk Drivers		Recreational Risk <sup>a</sup> / Risk Drivers		Recreational Risk <sup>a</sup> / Risk Drivers		Construction Risk <sup>a</sup> / Risk Drivers		Evaluation Rationale/ Evaluation Results	
	Cancer Risk <sup>b</sup>	HI	Cancer Risk <sup>b</sup>	HI	Cancer Risk <sup>b</sup>	HI	Cancer Risk	HI	Cancer Risk	HI	Cancer Risk	HI	Cancer Risk	HI		
IRP-13E	1.3 x 10 <sup>-5</sup> Aroclor 1260 Benzo(b)fluoranthene	0.75 None	8.4 x 10 <sup>-6</sup> Aroclor 1260	0.15 None	5.2 x 10 <sup>-7</sup> None	0.27 None	4.1 x 10 <sup>-6</sup> Aroclor 1260	0.41 None	NA	NA	NA	NA	NA	NA	Leaching evaluation indicates that all soil COPCs are below the tap water PRG. Therefore, no further action was recommended for groundwater.	

Notes:

<sup>a</sup> risk estimates presented are based on baseline risk assessment calculations

<sup>b</sup> the risk drivers presented are those associated with the incremental cancer risk

Acronyms/Abbreviations:

COPC - chemical of potential concern

HI - hazard index

IRP - Installation Restoration Program

NA - not applicable

PRG - preliminary remediation goal

RI - remedial investigation

## Section 7 Summary of Site Risks

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management decision to recommend no further action for soil at IRP-13E. This decision was based on the following conditions.

- The conservative nature of the baseline risk assessment assumes that a resident will live at the site for 30 years and be exposed to chemicals down to 10 feet bgs for 50 weeks each year.
- The highest measured concentrations of Aroclor 1260 and benzo(b)fluoranthene were used for the EPCs.
- The results of the fate and transport analysis for COPCs in soil indicated that none of the soil COPCs have the potential to impact groundwater in the future at concentrations exceeding tap water PRGs.

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## Section 8

### DESCRIPTION OF NO ACTION ALTERNATIVE

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It has been concluded that IRP-2, IRP-9, and IRP-13E and AOCs AD-04, AS-06, AS-08, AST-02, AST-04, MDA-04, MDA-07, MMS-01, and MWA-03 do not pose an unacceptable risk to human health or the environment based on:

- the RFA, ESI, and RI field investigations;
- HHRAs;
- fate and transport (leaching) analyses;
- geochemical evaluation of groundwater performed as part of the RI; and
- closure reports for IRP-2, IRP-9, and MWA-03.

Accordingly, no remedial action is appropriate for these IRP sites and AOCs.

Each of the IRP sites and AOCs included in the OU-2 ROD was evaluated and was determined to require no further action for soil or groundwater due to site-specific releases. However, IRP-9, AS-08, MDA-04, and MDA-07 are located near large VOC plumes that originate from three OU-1 sites (IRP-3, IRP-12, and IRP-13S). Therefore, groundwater at IRP-9, AS-08, MDA-04 and MDA-07 is being addressed as part of the OU-1 remedial action. The need for groundwater cleanup at IRP-9 and AOCs AS-08, MDA-04, and MDA-07 will be evaluated in conjunction with remedial action at OU-1 and will be documented in a separate ROD/RAP. DTSC, RWQCB, and U.S. EPA agree with this approach. The DON's selection of no action reflects the determination that site-specific releases do not represent a threat to human health or the environment.

No monitoring or deed restrictions are required to address chemicals present in soil and/or groundwater as a result of military operations at the no action IRP sites/AOCs. However, as part of potential remedial actions associated with OU-1, it may be necessary to place use restrictions on one or more of the IRP sites/AOCs. The need for such restrictions will be addressed in the Proposed Plan/draft RAP and ROD/RAP for OU-1. The property containing IRP-9, AS-08, MDA-04, and MDA-07 will not be transferred until the evaluation of OU-1 is complete and institutional controls are finalized for that property. Institutional controls are anticipated and will be developed in conjunction with an Environmental Restriction Covenant and Agreement. When the Environmental Restriction Covenant and Agreement is finalized, it will be executed contemporaneously with the negotiation and execution of the conveyance of the property to the transferee(s) by deed, pursuant to the Defense Base Closure and Realignment Act of 1990, 10 *United States Code* Section 2687 note.

Section 121(d) of CERCLA states that remedial actions at CERCLA sites must, upon completion, meet any federal (or state if more stringent) environmental standards, requirements, criteria, or limitations that are determined to be applicable or relevant and appropriate requirements (ARARs). ARARs do not apply unless remedial action is being taken at a site and are therefore not applicable to the no action sites and AOCs addressed in this ROD/RAP.

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## **Section 9**

### **DOCUMENTATION OF SIGNIFICANT CHANGES**

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The Proposed Plan/draft RAP for the no action sites and AOCs was released for public comment in January 2000. The Proposed Plan/draft RAP identified no further action as the appropriate response for these sites and AOCs.

The DON has reviewed all written and oral comments submitted during the public comment period. Upon review of these comments, it was determined that no significant changes to the selected remedial action of no further action, as it was originally identified in the Proposed Plan/draft RAP, were necessary or appropriate.

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## Section 10

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## **RESPONSIVENESS SUMMARY**

**RESPONSIVENESS SUMMARY**  
**MARINE CORPS AIR FACILITY - TUSTIN, California**  
**PROPOSED PLAN, OPERABLE UNIT 2, NO ACTION SITES AND AREAS OF CONCERN**

**Letters Received During Public Comment Period**

*Comments by: Dana Ogden, Senior Project Manager, City of Tustin, in a letter dated January 28, 2000*

Number	Comments	Response
1	<p>IRP-2- The document indicates that a pistol range had previously existed at the site yet there is no definitive indication that the site has ever been cleared of "unexploded ordnance."</p>	<p>Installation Restoration Program (IRP) Site 2 is a former oil disposal site that operated from 1970 to 1981. The site was adjacent to a former pistol range identified in the 1992 visual site inspection. The pistol range was addressed as area of concern (AOC) MRR-1 under the RCRA program. No further action (NFA) concurrence from the BCT was received for MRR-1 in January 1998.</p> <p>Available information on the former pistol range indicates that only small caliber ammunition (.45 caliber or less) was used at the range. The area containing the former pistol range was addressed in the IRP-2 site inspection (SI), conducted in 1991 by Jacobs Engineering Group, Inc. (JEG 1993), and the expanded site inspection (ESI) conducted in 1995 by Bechtel National, Inc. (BNI 1996). No evidence of unexploded ordnance, live or spent ammunition, or other pistol range debris was reported during drilling and sampling activities at the site.</p> <p>At the time of the investigations, residential housing facilities occupied the area, and there was no visual evidence of the former pistol range. Two shallow (1-ft. depth) soil samples and one groundwater sample were collected during the SI and were analyzed for volatile organic compounds (VOCs), total petroleum hydrocarbons, semivolatile organic compounds, polychlorinated biphenyls, pesticides, and metals. During the ESI, one groundwater hydropunch sample, and soil samples from five shallow (5-ft. depth) soil borings and one 30-ft. soil boring, were collected in the pistol range area and analyzed for VOCs, polynuclear aromatic hydrocarbons (PAHs), and metals. Based on the results of a residential-use scenario risk assessment of the analytical data available for IRP-2 and the former pistol range, the primary risk drivers at IRP-2 were identified as PAHs and arsenic (BNI 1996). The ESI report recommended NFA for soil at IRP-2, including soil at MRR-1, subsequent to a soil removal action at IRP-2. PAH-contaminated soil removal and site restoration activities at IRP-2 were completed in 1997.</p>

(table continues)

**Responsiveness Summary** (continued)

Number	Comments	Response
		<p>Based on an ESI recommendation, metals in groundwater at IRP-2 and MRR-1 were evaluated in a basewide groundwater fate and transport analysis (BNI 1997). It was determined that the dissolved metals reported at the site were within the range of natural variations of these constituents, and NFA was recommended for groundwater at IRP-2 and MRR-1.</p>
2	<p>IRP-2- The site is currently developed with residential structures that were constructed in 1979. Residential construction during this period of time typically utilized paints containing lead, yet there is no definitive statement that lead-based paint contamination has been examined and eliminated.</p>	<p>Please refer to Response 1 for a description of IRP-2. Lead-based paint (LBP) was not considered a release at IRP-2. As such, LBP will not be addressed in the MCAF Tustin decision documents (Proposed Plans or RODs), and there will be no definitive statement that LBP contamination has been examined and eliminated. However, full disclosure of LBP information will be provided to base property lessees or transferees.</p> <p>Although the Residential Lead-Based Paint Hazard Reduction Act of 1992, PL 102-550, Title X, does not require inspection of residential real property constructed after 1 January 1978, the following LBP information is available for the housing constructed in the vicinity of IRP-2. LBP surveys were conducted at several MCAF Tustin housing units built after 1978 during preparation of a LBP Management Plan in 1994. Included in the inspection were units in the Irvine Park North Housing Community, located in Parcel 34. These units were constructed in 1979 and 1982 and some are located within the boundaries of IRP-2.</p> <p>Sixty-five randomly selected housing units in Irvine Park North were inspected for LBP. Dust and soil samples from 13 units were also collected for lead analysis. According to the inspection reports (Navy Public Works Center 1995), the results indicate the following.</p> <ul style="list-style-type: none"> <li>! Lead-based paint does not exist on the surfaces of the tested components.</li> <li>! Overall surface paint conditions are classified as 100% intact.</li> <li>! A lead-in-soil hazard does not exist. Bulk soil samples tested by laboratory analysis were either negative or well below the interim hazard standards (U.S. EPA 1999) of 400 parts per million.</li> </ul>

(table continues)

**Responsiveness Summary** (continued)

Number	Comments	Response
		<p><b>!</b> A lead-in-dust hazard does not exist. Dust samples tested by laboratory analysis were either negative or well below the interim hazard standards (U.S. EPA 1999) of 40 micrograms per square foot (ug/ft<sup>2</sup>) for floors and 250 ug/ft<sup>2</sup> for interior window sills.</p>
		<p><b>References:</b></p> <p>JEG 1993: Final Site Inspection Report, Marine Corps Air Station (MCAS) Tustin, California. March.</p> <p>BNI 1996: Draft Final Expanded Site Inspection Report, Marine Corps Air Station, Tustin, California. October.</p> <p>BNI 1997: Draft Final Remedial Investigation Report for Operable Units 1 and 2, Marine Corps Air Station, Tustin, California. November.</p> <p>U.S. EPA 1999: Lead-Based Paint Guidelines for Disposal of Department of Defense Residential Real Property- A Field Guide. Interim Final, December.</p>

## **ATTACHMENTS**



**Attachment A**

**ADMINISTRATIVE RECORD  
SPECIAL COLLECTION INDEX  
FOR NO ACTION SITES**

# **SPECIAL COLLECTION INDEX**

## **OPERABLE UNIT 2**



**TECHNICAL DOCUMENTS**

**DRAFT ADMINISTRATIVE RECORD FILE INDEX – UPDATE (SORTED BY RECORD DATE/RECORD NUMBER)**  
**MCAS Tustin**  
**SITE SPECIFIC INDEX FOR OPERABLE UNIT 2**

UIC No. / Rec. No. Doc. Control No. Record Type Contr./Guid. No. Approx. # Pages	Prc. Date Record Date CTO No. EPA Cat. #	Author Affil. Author Recipient Affil. Recipient	Subject	Classification	Keywords	Sites	Location Box No.
M62535 / 000870  RPT NONE 0300	06-11-1996 <b>09-01-1978</b> NONE 00.0	USDA	SOIL SURVEY OF ORANGE COUNTY AND WESTERN PART OF RIVERSIDE COUNTY	ADMIN RECORD	SOIL SURVEY TECHNICAL DOC.	00001 00003 00005 00007 00012 00013 00016 OU 2	SOUTHWEST DIVISION
M62535 / 000057  RPT NONE 0125	06-06-1994 <b>09-26-1984</b> NONE 01.1		GROUNDWATER MANAGEMENT, IRVINE AREA, ORANGE COUNTY CALIFORNIA - FOR OC WATER DISTRICT BY HARVEY O. BANKS, CONSULTING ENGINEER	ADMIN RECORD	EL TORO GROUNDWATER	00001 00003 00005 00007 00012 00013 00016 OU 1 OU 2 OU 3	SOUTHWEST DIVISION
M62535 / 000328  RPT N62474-B4-C3378 0350	11-02-1994 <b>06-01-1985</b> NONE 01.1	BROWN & CALDWELL  NEESA	DRAFT INITIAL ASSESSMENT STUDY MCAS (HELICOPTER) TUSTIN (NEESA 13-075), NAVAL ENERGY & ENVIRONMENTAL SUPPORT ACTIVITY, PT. HUENEME	ADMIN RECORD	ASSESSMENT ST TECHNICAL DOC.	00001 00002 00003 00005 00007 00008 00012 00013 OU 1 OU 2 OU 3	SOUTHWEST DIVISION

UIC No. / Rec. No. Doc. Control No. Record Type Contr./Guid. No. Approx. # Pages	Prc. Date Record Date CTO No. EPA Cat. #	Author Affil. Author Recipient Affil. Recipient	Subject	Classification	Keywords	Sites	Location Box No.
M62535 / 000121  RPT NONE 0112	10-06-1994 <b>09-01-1985</b> NONE 01.3	BROWN AND CALDWELL E.B. LUECKER NEESA PORT HUENEME	INITIAL ASSESSMENT STUDY OF MCAS, TUSTIN NEESA 13-075	ADMIN RECORD	IAS MOFFETT TRENC TECHNICAL DOC.	00001 00002 00004 00005 00006 00007 00008 00009 00010 00011 00012 00013 00014 00015 OU 1 OU 2 OU 3	SOUTHWEST DIVISION
M62535 / 000091  LTR NONE 0002	10-06-1994 <b>09-18-1986</b> NONE 01.1	DHS LOS ANGELES S.W. SIMPSON MCAS TUSTIN J. B. LEAP	DOHS COMMENTS ON INITIAL ASSESSMENT STUDY OF SEPTEMBER 1985	ADMIN RECORD	ASSESSMENT ST COMMENTS IAS MOFFETT TRENC TECHNICAL DOC.	00007 00008 00009 00010 00011 00012 00013 00014 OU 1 OU 2 OU 3	SOUTHWEST DIVISION

UIC No. / Rec. No. Doc. Control No. Record Type Contr./Guid. No. Approx. # Pages	Prc. Date Record Date CTO No. EPA Cat. #	Author Affil. Author Recipient Affil. Recipient	Subject	Classification	Keywords	Sites	Location Box No.
M62535 / 000409	01-12-1995 01-01-1991		1991 CLOSURE INFORMATION; NOTES MEMOS FAX	ADMIN RECORD	IAS SITE INVESTIGAT	00003 00005 00007 00008 00009 00012 00013 00015 OU 1 OU 2	SOUTHWEST DIVISION
MISC NONE 0100	NONE 01.1						

UIC No. / Rec. No. Doc. Control No. Record Type Contr./Guid. No. Approx. # Pages	Prc. Date Record Date CTO No. EPA Cat. #	Author Affil. Author Recipient Affil. Recipient	Subject	Classification	Keywords	Sites	Location Box No.
M62535 / 000125	10-06-1994 <b>03-15-1991</b>	U.S. NAVY J. R. FAUNCE	ADDENDUM TO THE PRELIMINARY ASSESSMENT (IAS) NEESA 13-075A STUDY	ADMIN RECORD	IAS	00001	SOUTHWEST DIVISION
RPT	NONE	US EPA SAN	CONCLUDED RECOMMENDATIONS FOR		MOFFETT TRENC	00002	
NONE	01.3	FRANSISCO	SEVERAL SITES UNDER IRP SIGNED		PRELIM. ASSESS.	00003	
0058		A. STRAUSS	FEBRUARY 22, 1991		TECHNICAL DOC.	00004	
						00005	
						00006	
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						00009	
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						OU 2	
						OU 3	

UIC No. / Rec. No. Doc. Control No. Record Type Contr./Guid. No. Approx. # Pages	Prc. Date Record Date CTO No. EPA Cat. #	Author Affil. Author Recipient Affil. Recipient	Subject	Classification	Keywords	Sites	Location Box No.
M62535 / 000481  MISC NONE 0003	05-30-1995 <b>04-01-1991</b> NONE 00.0		INSTALLATION RESTORATION PROGRAM, HISTORY, CURRENT STATUS, ANTICIPATED SCHEDULE, BUDGET	NON-ADMIN RECORD	HISTORIC IRP SITE INVESTIGAT	00002 00003 00005 00007 00008 00009 00012 00013 00015 OU 1 OU 2	SOUTHWEST DIVISION
M62535 / 001034  RPT NONE 0005	07-18-1996 <b>09-02-1992</b> NONE 01.0	RWQCB-SA G. STEWART SWDIV S. TOWER	STAFF REPORT – UPDATE ON ENVIRONMENTAL RESTORATION ACTIVITIES AT MCAS EL TORO	ADMIN RECORD	IRP	00001 00018 OU 1 OU 2 OU 3 OU 4	SOUTHWEST DIVISION
M62535 / 000263  FACT N68711-89-D9696 0006	10-06-1994 <b>02-17-1993</b> 00244 10.6	IT CORPORATION R. SMITH SOUTHWEST DIVISION R. GREEN	FINAL FACT SHEET: BASE HISTORY & DESCRIPTION; IRP'S OPERABLE UNITS; COMMUNITY RELATIONS PROGRAM; HOW IRP WORKS; WHERE YOU CAN GET MORE INFORMATION	ADMIN RECORD	COMM REL FACT SHEET MOFF. PUB PART OPERABLE UNIT PUBLIC PART.	00001 00002 00003 00004 00005 00006 00007 00008 00009 00010 00012 0013W OU 1 OU 2 OU 3	SOUTHWEST DIVISION

UIC No. / Rec. No. Doc. Control No. Record Type Contr./Guid. No. Approx. # Pages	Prc. Date Record Date CTO No. EPA Cat. #	Author Affil. Author Recipient Affil. Recipient	Subject	Classification	Keywords	Sites	Location Box No.
M62535 / 000511  CRP N68711-89-D9296 0030	06-12-1995 <b>03-30-1993</b> 00244 10.2	JACOBS ROBIN SMITH SWDIV	DRAFT REVISED COMMUNITY RELATIONS PLAN	ADMIN RECORD	CRP	00001 00002 00003 00004 00005 00006 00007 00008 00010 00012 00013 00016 OU 1 OU 2 OU 3	SOUTHWEST DIVISION
M62535 / 000020  MISC NONE 0200	04-07-1994 <b>09-27-1993</b> 00244 01.1	SWDIV/JACOBS	MANAGEMENT ACTION PLAN DRAFT (CLEAN I) STATUS SUMMARY OF RESTORATION AND COMPLIANCE PROGRAM	ADMIN RECORD	TECHNICAL DOC.	00001 00002 00003 00004 00005 00006 00007 00008 00009 00010 00011 00012 00013 00014 00015 00016 OU 2 OU 3	SOUTHWEST DIVISION



UIC No. / Rec. No. Doc. Control No. Record Type Contr./Guid. No. Approx. # Pages	Prc. Date Record Date CTO No. EPA Cat. #	Author Affil. Author Recipient Affil. Recipient	Subject	Classification	Keywords	Sites	Location Box No.
M62535 / 000413  RPT NONE 0150	02-27-1995 <b>10-01-1993</b> NONE 01.1	COTTON/BELAND  MCAS TUSTIN	EIS/EIR ENVIRONMENTAL SETTING REPORT SPECIFIC PLAN AND BASE DISPOSAL/REUSE PLAN (SUPERSEDED BY M62535-000061)	ADMIN RECORD	DISPOSAL EIR EIS REUSE	OU 1 OU 2 OU 3	SOUTHWEST DIVISION
M62535 / 000948  MEMO NONE 0008	06-28-1996 <b>02-07-1994</b> NONE 10.0	SOUTHWEST DIVISION D. CHANDLER VARIOUS AGENCIES	MEETING MINUTES FROM JANUARY 25, 1995 TECHNICAL REVIEW COMMITTEE TRANSITION MEETING, INCLUDES LIST OF MEETING ATTENDEES	ADMIN RECORD	MOFF. PUB PART MTG MINS PUBLIC PART TRC	00001 00002 00003 00004 00005 00006 00007 00008 00009 00010 00011 00012 00013 00014 00015 00016 OU 1 OU 2 OU 3	SOUTHWEST DIVISION

UIC No. / Rec. No. Doc. Control No. Record Type Contr./Guid. No. Approx. # Pages	Prc. Date Record Date CTO No. EPA Cat. #	Author Affil. Author Recipient Affil. Recipient	Subject	Classification	Keywords	Sites	Location Box No.
M62535 / 000949  MISC NONE 0001	06-28-1996 <b>02-09-1994</b> NONE 10.3	MCAS TUSTIN  PUBLIC	PUBLIC NOTICE ANNOUNCING FEBRUARY 24, 1994 PUBLIC MEETING SCHEDULED FOR FORMATION OF RESTORATION ADVISORY BOARD AND SOLICITATION OF RAB MEMBERS	ADMIN RECORD	MEDIA MOFF. PUB PART PUBLIC NOTICE PUBLIC PART. RAB	00001 00002 00003 00004 00005 00006 00007 00008 00009 00010 00011 00012 00013 00014 00015 00016 OU 1 OU 2 OU 3	SOUTHWEST DIVISION
M62535 / 000081  BCP NONE 0200	06-11-1996 <b>03-01-1994</b> NONE 03.3	SOUTHWEST DIVISION  VARIOUS AGENCIES	BRAC CLEANUP PLAN FOR 1993, DATED MARCH 1994	ADMIN RECORD	BCP MOFFETT TRENC TECHNICAL DOC.	00005 00006 00007 00008 00009 00011 00012 00015 00016 0013W OU 1 OU 2 OU 3	SOUTHWEST DIVISION

UIC No. / Rec. No. Doc. Control No. Record Type Contr./Guid. No. Approx. # Pages	Prc. Date Record Date CTO No. EPA Cat. #	Author Affil. Author Recipient Affil. Recipient	Subject	Classification	Keywords	Sites	Location Box No.
M62535 / 000056 CLE-I01-01F246- S1-0004 RPT N68711-89-D9296 0750	06-06-1994 <b>04-14-1994</b> 00246 01.4	SOUTHWEST DIVISION D. CHANDLER VARIOUS AGENCIES	FINAL - ENVIRONMENTAL BASELINE SURVEY (EBS) FOR CERFA REPORT	ADMIN RECORD	CERFA EBS MOFFETT TRENC TECHNICAL DOC.	00001 00002 00003 00004 00005 00006 00007 00008 00009 00010 00011 00012 00013 00014 00015 00016 0007N 0013W OU 1 OU 2 OU 3	SOUTHWEST DIVISION
M62535 / 001548  RPT NONE 0080	02-05-1998 <b>05-01-1994</b> NONE 01.4	LEIGHTON AND ASSOC.  MCAS TUSTIN	DRAFT HISTORIC BLIMP HANGARS ANALYSIS	ADMIN RECORD	HAZMAT HISTORIC	BLDG. 28 BLDG. 29 HANGAR 1 HANGAR 2 OU 1 OU 2	SOUTHWEST DIVISION

UIC No. / Rec. No. Doc. Control No. Record Type Contr./Guid. No. Approx. # Pages	Prc. Date Record Date CTO No. EPA Cat. #	Author Affil. Author Recipient Affil. Recipient	Subject	Classification	Keywords	Sites	Location Box No.
M62535 / 000418  RPT W-31-109-ENG-38 1254	02-27-1995 <b>08-01-1994</b> NONE 01.1	ANL  BECHTEL NATIONAL	DRAFT REPORT: GEOLOGY, HYDROGEOLOGY AND SITE HISTORY	ADMIN RECORD	GEO HISTORIC TECHNICAL DOC.	00001 00002 00003 00004 00005 00006 00007 00008 00009 00010 00011 00012 00013 00014 00015 OU 1 OU 2 OU 3	SOUTHWEST DIVISION
M62535 / 000604  SAPL N68711-89-D9296 0075	08-22-1995 <b>09-01-1994</b> 00210 01.1	JACOBS N. ACEDERA SWDIV	****MARINE CORPS AIR STATION YUMA, ARIZONA, OPERABLE UNIT 2 FIELD SAMPLING PLAN DRAFT FINAL	NON-ADMIN RECORD	CERCLA DQOP FSP RCRA UST	OU 2	SOUTHWEST DIVISION
M62535 / 000772 CTO-0049/0109 MM N68711-92-D-4670 0003	04-02-1996 <b>10-24-1994</b> 00049 01.1	BECHTEL NATIONAL W. MYERS VARIOUS AGENCIES VARIOUS AGENCIES	MEETING MINUTES: MCAS TUSTIN PROJECT REVIEW MEETING, REMEDIAL INVESTIGATION OCTOBER 14, 1994	ADMIN RECORD	MTG MINS REMEDIAL INVES TECHNICAL DOC.	00003 00005 00007 00016 OU 1 OU 2	SOUTHWEST DIVISION

UIC No. / Rec. No. Doc. Control No. Record Type Contr./Guid. No. Approx. # Pages	Prc. Date Record Date CTO No. EPA Cat. #	Author Affil. Author Recipient Affil. Recipient	Subject	Classification	Keywords	Sites	Location Box No.
M62535 / 001192  LTR NONE 0021	01-13-1997 <b>01-24-1995</b> NONE 10.1	SOUTHWEST DIVISION J. PAYNE US EPA SAN FRANSISCO D. HODGES	NAVY RESPONSE TO AGENCY COMMENTS ON THE TECHNICAL MEMORANDUM PREPARED IN SUPPORT OF THE REMEDIAL INVESTIGATION	ADMIN RECORD	COMMENTS MOFFETT TRENC REMEDIAL INVES TECHNICAL DOC.	00001 00003 00005 00007 00012 00016 OU 2 OU 3	SOUTHWEST DIVISION
M62535 ' 001782 CTO-0039/0077 MM N68711-92-D-4670 0004	04-17-2000 <b>02-01-1995</b> 00039	BECHTEL NATIONAL INC.  NAVFAC- SOUTHWEST DIVISION	MEETING MINUTES – BRAC CLEANUP TEAM/PROJECT	ADMIN RECORD	AOC ASBESTOS BCP BRAC COMMENTS FFSRA FOSL FOST GW MTG MINS UST	1 10 11 12 13 14 15 16 2 3 4 5 6 7 9 OU 2	SOUTHWEST DIVISION
M62535 / 000895  COMM N68711-92-D4670 0006	06-17-1996 <b>02-23-1995</b> 00049 01.1	SWDIV L. HORNECKER SWDIV J. ROGERS	SWDIV (INTERNAL) COMMENTS ON DRAFT CLEAN II DATA MANAGEMENT PLAN DOC. CNTRL. # CTO-0049/0063	NON-ADMIN RECORD	COMMENTS DATA DMP	OU 2	SOUTHWEST DIVISION

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M62535 / 000985  MM N68711-92-D4670 0004	07-08-1996 <b>02-24-1995</b> 00039 01.1	BECHTEL NATIONAL S. REACKHOF SWDIV P. KENNEDY?	MINUTES OF MCAS TUSTIN BCT/PROJECT REVIEW MEETING FOR BCP COMMENT RESOLUTION	ADMIN RECORD	AST BCP UST	00001 00003 00005 00007 00012 00013 00016 OU 1 OU 2 OU 3	SOUTHWEST DIVISION
M62535 / 000579 CTO-0049/0072 WKPL N68711-92-D-4670 0500	07-18-1995 <b>03-01-1995</b> 00049 01.1	BECHTEL NATIONAL W. MYERS SOUTHWEST DIVISION	DRAFT REMEDIAL INVESTIGATION WORK PLAN FOR OPERABLE UNIT 1 AND OPERABLE UNIT 2 MARINE AIR CORPS AIR STATION TUSTIN (INCLUDES DRAFT BACKGROUND SOILS & GROUNDWATER WORK PLAN), VOLUME 1, VOLUME 2 = DOCUMENT # 000580	ADMIN RECORD	MOFFETT TRENC REMEDIAL INVES TECHNICAL DOC. WORKPLANS	00003 00005 00007 00012 00013 00016 OU 1 OU 2 OU 3	SOUTHWEST DIVISION
M62535 / 000580 CTO-0049/0072 WKPL N68711-92-D-4670 0500	07-18-1995 <b>03-01-1995</b> 00049 01.1	BECHTEL NATIONAL W. MYERS SOUTHWEST DIVISION	DRAFT REMEDIAL INVESTIGATION WORK PLAN FOR OPERABLE UNITS 1 AND 2 (INCLUDES DRAFT BACKGROUND SOILS & GROUNDWATER WORK PLAN), VOLUME 2, VOLUME 1 = DOCUMENT #000579	ADMIN RECORD	MOFFETT TRENC REMEDIAL INVES TECHNICAL DOC WORKPLANS	00003 00005 00007 00012 00013 00016 OU 1 OU 2 OU 3	SOUTHWEST DIVISION
M62535 / 000904  COMM N68711-92-D4670 0002	06-17-1996 <b>03-02-1995</b> 00049 01.1	BECHTEL NATIONAL H. MASRI SWDIV J. PAYNE	BECHTEL'S COMMENTS ON ANL REPORT EXPEDITED SITE CHARACTERIZATION DRAFT PHASE I & RECOMMENDATIONS FOR PHASE II/DOC. CNTRL. #CTO- 0049/0067	NON-ADMIN RECORD	ANL COMMENTS	OU 1 OU 2	SOUTHWEST DIVISION

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M62535 / 000780 CTO-0049/0086 WKPL N68711-92-D-4670 0100	04-03-1996 <b>03-29-1995</b> 00049 01.1	BECHTEL NATIONAL W. MYERS SWDIV J. PAYNE	DRAFT RISK ASSESSMENT WORK PLAN CONCLUDING PART I: HUMAN RISK ASSESSMENT; PART II: INCLUDING ECOLOGICAL ASSESSMENT	ADMIN RECORD	HA MOFFETT TRENC MTG MINS RA TECHNICAL DOC.	00002 00003 00005 00007 00012 00013 00016 0007N 0007S 0013E 0013W OU 1 OU 2 OU 3	SOUTHWEST DIVISION
M62535 / 000348  LTR NONE 0001	06-25-1996 <b>04-17-1995</b> NONE 01.1	SOUTHWEST DIVISION J. PAYNE VARIOUS AGENCIES	TRANSMITTAL VOLS 1 & 2 OF DRAFT REMEDIAL INVESTIGATION WORK PLAN, IDW, HEALTH & SAFETY, RISK ASSESSMENT, DQOS FOR OU1 & OU2, FIELD SAMPLING PLAN	ADMIN RECORD	H&SP IDW RA REMEDIAL INVES WORKPLANS	00001 00003 00005 00007 00012 00013 00016 OU 1 OU 2 OU 3	SOUTHWEST DIVISION
M62535 / 000757  COMM N68711-92-D4670 0002	04-02-1996 <b>04-19-1995</b> 00049 01.1	DTSC B. SIMMONS DTSC LONG BEACH M. IBRAHIM	COMMENTS FROM BART SIMMONS, PH.D ON DRAFT QAPP, CTO-049 (DOCUMENT CONTROL #049/210)	ADMIN RECORD	COMMENTS QAPP TECHNICAL DOC.	OU 1 OU 2	SOUTHWEST DIVISION
M62535 / 001585  LTR NONE 0002	02-26-1998 <b>04-19-1995</b> 00049 10.1	HAZARDOUS MAT. LAB B. SIMMONS DTSC LONG BEACH M. IBRAHIM	DTSC REVIEW OF THE DRAFT QUALITY ASSURANCE PROJECT PLAN	ADMIN RECORD	QAPP	OU 1 OU 2	SOUTHWEST DIVISION

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M62535 / 000619  COMM NONE 0006	08-22-1995 <b>05-25-1995</b> 00049 01.1	US EPA SAN FRANSISCO D. HODGES SOUTHWEST DIVISION J. PAYNE	USEPA COMMENTS ON DRAFT FIELD SAMPLING PLAN, DRAFT REMEDIAL INVESTIGATION WORK PLAN FOR OPERABLE UNIT 1 AND OPERABLE UNIT 2	ADMIN RECORD	COMMENTS FSP MOFFETT TRENC OPERABLE UNIT REMEDIAL INVES SAMPLING TECHNICAL DOC. USEPA WORKPLANS	00013 OU 1 OU 2 OU 3	SOUTHWEST DIVISION
M62535 / 000815  MM N68711-92-D4670 0015	05-17-1996 <b>05-31-1995</b> 00063 01.1	SOUTHWEST DIVISION D. CHANDLER RAB MEMBERS PUBLIC	MINUTES & OTHER MATERIALS FROM MAY 31, 1995 RAB MEETING (ALSO AVAILABLE IN RAB ARCHIVES BINDER DOCUMENT # 000682)	ADMIN RECORD	COMM REL MOFF. PUB PART MTG MINS PUBLIC PART. RAB	00001 00003 00005 00007 00012 00013 00016 OU 1 OU 2 OU 3	SOUTHWEST DIVISION
M62535 / 000612  COMM NONE 0004	08-22-1995 <b>06-20-1995</b> NONE 01.1	US EPA SAN FRANSISCO D. HODGES SWDIV L. NUZUM	COMMENTS ON DRAFT MOBILE LABORATORY QUALITY ASSURANCE PROJECT PLAN MCAS TUSTIN	ADMIN RECORD	COMMENTS MOFFETT TRENC QAPP TECHNICAL DOC.	00001 00003 00005 00007 00012 00013 00016 OU 1 OU 2 OU 3	SOUTHWEST DIVISION



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M62535 / 000045  COMM N68711-92-D4670 0003	05-10-1994 <b>06-29-1995</b> NONE 01.1	DTSC B. SIMMONS DTSC H. IBRAHIM	DTSC COMMENTS ON DRAFT MOBIL LAB QAPP	ADMIN RECORD	COMMENTS MOFFETT TRENC QAPP TECHNICAL DOC.	00012 00013 00016 OU 1 OU 2 OU 3	SOUTHWEST DIVISION
M62535 / 000101  COMM N68711-92-D4670 0005	10-06-1994 <b>06-30-1995</b> 00049 01.1	USEPA J. PAYNE USEPA D. HODGES	USEPA COMMENTS ON DRAFT RISK ASSESSMENT WORK PLAN PART I - HUMAN HEALTH RISK ASSESSMENT	ADMIN RECORD	COMMENTS MOFFETT TRENC QAPP TECHNICAL DOC. WORKPLANS	00001 00005 00007 00012 00013 00016 OU 1 OU 2 OU 3	SOUTHWEST DIVISION
M62535 / 000891  COMM N68711-92-D4670 0003	06-17-1996 <b>06-30-1995</b> 00049 01.1	US EPA SAN FRANCISCO D. HODGES SOUTHWEST DIVISION J. PAYNE	USEPA COMMENTS ON DRAFT CLEAN II DATA MANAGEMENT PLAN, MCAS TUSTIN	ADMIN RECORD	COMMENTS DATA DMP MOFFETT TRENC TECHNICAL DOC. USEPA	00001 00003 00007 00012 00013 00016 OU 1 OU 2 OU 3	SOUTHWEST DIVISION
M62535 / 000637 CTO-0049/0166 SAPL N68711-92-D-4670 0800	08-30-1995 <b>07-05-1995</b> 00049 01.1	BECHTEL NATIONAL W. MYERS SOUTHWEST DIVISION	DRAFT FINAL SAMPLING AND ANALYSIS PLAN - REFERENCE DOCUMENTS 858, 859, 860; INCLUDES REPLACEMENT PAGES FOR SECTIONS 1, 2, & 3; TABLE OF CONTENTS; & APPENDIX D, DATED 9/5/95, REPLACEMENT PAGES FOR SECTIONS 1, 2, & 4, DATED 8/16/95	ADMIN RECORD	SAMPLING SAP TECHNICAL DOC.	00001 00003 00005 00007 00012 00016 OU 1 OU 2 OU 3	SOUTHWEST DIVISION

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M62535 / 000884 CTO-0049/0165 PLAN N68711-92-D4670 0100	06-11-1996 <b>07-05-1995</b> 00049 01.1	BECHTEL NATIONAL W. MYERS SOUTHWEST DIVISION	DRAFT FINAL INVESTIGATION-DERIVED WASTE MANAGEMENT PLANS TUSTIN NAVY CLEAN II	ADMIN RECORD	IDWMP TECHNICAL DOC.	00001 00003 00005 00007 00012 00013 00016 OU 1 OU 2 OU 3	SOUTHWEST DIVISION
M62535 / 000874 CTO-0049/0169 ISPA N68711-92-D-4670 0060	06-11-1996 <b>07-05-1995</b> 00049 01.1	BECHTEL NATIONAL W. MYERS SWDIV	BACKGROUND SOILS ISSUE PAPER	ADMIN RECORD	SOIL TECHNICAL DOC.	00001 00003 00005 00007 00012 00013 00016 OU 2 OU 3	SOUTHWEST DIVISION
M62535 / 000905 CTO-0049/0161 RESP N68711-92-D4670 0030	06-17-1996 <b>07-18-1995</b> 00049 01.1	BECHTEL NATIONAL H. MASRI SOUTHWEST DIVISION J. PAYNE	RESP TO COMMENTS ON DRAFT REMEDIATION INVESTIGATION WK PL, FIELD SAMPLING PLAN AND COMMENTS ON EXPEDITED SITE CHARACTERIZATION PHASE I REPORT	ADMIN RECORD	ANL COMMENTS ESC FSP REMEDIATION INVES RESPACT TECHNICAL DOC. WORKPLANS	00001 00003 00005 00007 00012 00013 00016 OU 1 OU 2 OU 3	SOUTHWEST DIVISION

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M62535 / 000635  PLAN N68711-92-D-4670 0100	01-01-2001 <b>08-01-1995</b> 00063 10.2	BECHTEL NATIONAL	DRAFT UPDATED COMMUNITY RELATIONS PLAN	ADMIN RECORD INFO REPOSITORY	ARAR BRAC CRP DERA EE/CA MEK NPL PA PR RAB RCRA RFA RFI ROD SARA SI SWMU UST VSI	1 OU 2	SOUTHWEST DIVISION
M62535 / 000819  MISC N68711-92-D4670 0001	05-17-1996 <b>08-01-1995</b> 00063 01.1	SOUTHWEST DIVISION VARIOUS RAB MEMBERS PUBLIC	ANNOUNCEMENT OF NO 8-95 GENERAL MTG; ANNOUNCEMENT OF R/FS SUBCOMMITTEE MEETING AUGUST 22, 1995 (ALSO AVAILABLE IN RAB ARCHIVES BINDER DOC# 000682)	ADMIN RECORD	COMM REL FEASIBILITY STU. MOFF. PUB PART PUBLIC PART. RAB REMEDIAL INVES	00001 00003 00005 00007 00012 00013 00016 OU 1 OU 2 OU 3	SOUTHWEST DIVISON

UIC No. / Rec. No. Doc. Control No. Record Type Contr./Guid. No. Approx. # Pages	Prc. Date Record Date CTO No. EPA Cat. #	Author Affil. Author Recipient Affil. Recipient	Subject	Classification	Keywords	Sites	Location Box No.
M62535 / 000894 CTO-0049/0190 MISC N68711-92-D-4670 0040	06-17-1996 <b>08-02-1995</b> 00049 01.1	BECHTEL NATIONAL A. MASVIDAL SWDIV	DRAFT FINAL DATA MANAGEMENT PLAN AND DRAFT RESPONSES TO COMMENTS	ADMIN RECORD	COMMENTS DMP	00001 00003 00005 00007 00012 00013 00016 OU 1 OU 2 OU 3	SOUTHWEST DIVISION
M62535 / 000646 CTO-0049/0190 WKPL N68711-92-D-4670 0500	09-06-1995 <b>08-08-1995</b> 00049 01.1	BECHTEL NATIONAL W. MYERS SWDIV	DRAFT FINAL REMEDIAL INVESTIGATION WORK PLAN FOR OU 1 & OU 2, (VOL. I, SECTS 1-8; APPX A; VOL. II - APPX B-F) (CONSIDERED FINAL PER LETTER DATED 1/5/98 - AR # 1596)	ADMIN RECORD	OPERABLE UNIT REMEDIAL INVES TECHNICAL DOC. WORKPLANS	00001 00003 00005 00007 00012 00013 00016 OU 1 OU 2 OU 3	SOUTHWEST DIVISION
M62535 / 000784  MM N6871192D46700 0050	04-03-1996 <b>08-15-1995</b> 00049 01.1	BECHTEL NATIONAL W. MYERS VARIOUS AGENCIES	MINUTES FROM AUGUST 3, 1995 MEETING HELD TO DISCUSS FIELD PROGRESS AT SITES 1, 3, 5, 7, 12, 13, 16 AND PROPOSALS FOR ADDITIONAL FIELD WORK	ADMIN RECORD	MAP MOFFETT TRENC MTG MINS TECHNICAL DOC.	00001 00003 00005 00012 00013 00016 0007N 0007S 0013W OU 1 OU 2 OU 3	SOUTHWEST DIVISION

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M62535 / 000907  COMM N68711-92-D4670 0005	06-17-1996 <b>08-25-1995</b> 00049 01.1	DTSC J. CHRISTOPHER DTSC M. IBRAHIM	DTSC COMMENTS ON WORK PLAN FOR HUMAN HEALTH RISK ASSESSMENT	ADMIN RECORD	COMMENTS HA MOFFETT TRENC RA TECHNICAL DOC. WORKPLANS	00001 00003 00007 00012 00013 00016 OU 1 OU 2 OU 3	SOUTHWEST DIVISION
M62535 / 000859  RESP N68711-92-D4670 0005	06-10-1996 <b>08-31-1995</b> 00049 01.1	USMC  VARIOUS AGENCIES HODGES, GARELICK	DRAFT RESPONSE TO EPA COMMENTS ON DRAFT MOBILE LAB QAPP; REFERENCE DOCUMENTS 637, 858, 860 DOCUMENT CONTROL # CTO-0049/0213	ADMIN RECORD	COMMENTS QAPP TECHNICAL DOC. USEPA	00001 00003 00005 00007 00012 00013 00016 OU 1 OU 2 OU 3	SOUTHWEST DIVISION
M62535 / 000906  COMM N68711-92-D4670 0007	06-17-1996 <b>08-31-1995</b> 00049 01.1	DTSC J. CHRISTOPHER DTSC M. IBRAHIM	COMMENTS ON WORK PLAN FOR ECOLOGICAL RISK ASSESSMENT	ADMIN RECORD	COMMENTS MOFFETT TRENC RA TECHNICAL DOC. WORKPLANS	00001 OU 1 OU 2 OU 3	SOUTHWEST DIVISION
M62535 / 000873  GUID NONE 0040	06-11-1996 <b>09-01-1995</b> NONE 01.1	US EPA SAN FRANCISCO S. SMUCKER VARIOUS AGENCIES	USEPA REGION IX PRELIMINARY REMEDIATION GOALS (PRGS) SECOND HALF 1995	ADMIN RECORD	MOFF. GUID PRG TECH/GUID/DOC. USEPA	00001 00003 00005 00007 00012 00013 00016 OU 1 OU 2 OU 3	SOUTHWEST DIVISION

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M62535 / 000858 CTO-0049/0213 QAPP N68711-92-D-4670 0050	06-10-1996 <b>09-06-1995</b> 00049 01.1	BECHTEL NATIONAL W. MYERS SOUTHWEST DIVISION J. PAYNE	APPENDIX B.1, MOBIL LAB QAPP - APPENDIX TO DRAFT FINAL FIELD SAMPLING PLAN; REFERENCE DOCUMENT 637, 859, 860	ADMIN RECORD	FSP QAPP TECHNICAL DOC.	00001 00003 00005 00007 00012 00013 00016 OU 1 OU 2 OU 3	SOUTHWEST DIVISION
M62535 / 000374  COMM N8711-92-D46700 0002	06-25-1996 <b>09-08-1995</b> 00049 01.1	MCAS TUSTIN D. HODGES USEPA J. PAYNE	USEPA COMMENTS ON OFFSITE SAMPLING FOR BACKGROUND PAHS, SECTION 2.11 OF DRAFT FINAL FIELD SAMPLING PLAN	ADMIN RECORD	COMMENTS FSP TECHNICAL DOC. USEPA	00001 00003 00005 00007 00012 00013 00016 OU 2 OU 3	SOUTHWEST DIVISION
M62535 / 000375  COMM N68711-92-D4670 0002	06-25-1996 <b>09-08-1995</b> 00049 01.1	USEPA D. HODGES SWDIV J. PAYNE	USEPA COMMENTS ON BACKGROUND SOILS ISSUE PAPER	ADMIN RECORD	COMMENTS TECHNICAL DOC. USEPA	00001 00003 00005 00007 00012 00013 00016 OU 2 OU 3	SOUTHWEST DIVISION

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M62535 / 000671 CTO-0049/0218 MISC N68711-92-D-4670 0015	10-23-1995 <b>09-11-1995</b> 00049 01.1	BECHTEL NATIONAL W. MYERS SOUTHWEST DIVISION	DRAFT ISSUE PAPER ON FIELD STUDY OF MICROPURGING TECHNIQUE TO ASSESS APPLICABILITY	ADMIN RECORD	MOFFETT TRENC	00001 00003 00005 00007 00013 00016 OU 1 OU 2 OU 3	SOUTHWEST DIVISION
M62535 / 000893 CTO-0049/0252 COMM N68711-92-D4670 0007	06-17-1996 <b>09-27-1995</b> 00049 01.1	USEPA D. HODGES SOUTHWEST DIVISION J. PAYNE	USEPA COMMENTS ON BACKGROUND SOILS ISSUE PAPER	ADMIN RECORD	COMMENTS SOIL	00001 00003 00005 00007 00012 00013 00016 OU 2 OU 3	SOUTHWEST DIVISION
M62535 / 000766  MM N6871192D467000 0080	04-02-1996 <b>09-28-1995</b> 00049 01.1	BECHTEL NATIONAL W. MYERS VARIOUS AGENCIES	MINUTES FROM AUGUST 17, 1995 MEETING HELD TO DISCUSS FIELD ACTIVITIES AT IR PROGRAM SITES 1, 3, 7, 12, 13, & 16 AND PROPOSALS FOR ADDITIONAL FIELD WORK	ADMIN RECORD	MOFFETT TRENC MTG MINS PEA TECHNICAL DO. USEPA	00001 00003 00007 00012 00016 0007N 0013W OU 1 OU 2 OU 3	SOUTHWEST DIVISION

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M62535 / 000683 CTO-0049/0288 RPT N68711-92-D-4670 0350	12-29-1995 <b>10-01-1995</b> 00049 01.1	BECHTEL NATIONAL W. MYERS SOUTHWEST DIVISION	DRAFT FINAL TECHNICAL MEMORANDUM, VOLUME I (VOLUME II IS AR # 684) CONSIDERED FINAL PER LETTER DATED 1/5/98 - REFER TO AR # 1595)	ADMIN RECORD	MOFFETT TRENC TECH MEMO TECHNICAL DOC.	00001 00012 00016 0013E 0013W 0016A 0016B 0016C OU 1 OU 2 OU 3	SOUTHWEST DIVISION
M62535 / 000684 CTO-0049/0288 RPT N68711-92-D-4670 0500	12-29-1995 <b>10-01-1995</b> 00049 01.1	BECHTEL NATIONAL W. MYERS SOUTHWEST DIVISION	DRAFT FINAL TECHNICAL MEMORANDUM, VOLUME II (VOLUME I IS AR # 683) CONSIDERED FINAL PER LETTER DATED 1/5/98 - REFER TO AR # 1595)	ADMIN RECORD	MOFFETT TRENC TECH MEMO TECHNICAL DOC.	00001 00012 00013 00016 OU 1 OU 2 OU 3 PARCEL 13W	SOUTHWEST DIVISION



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M62535 / 000668  WKPL N86711-92-D4670 0400	10-23-1995 <b>10-02-1995</b> 00054 01.1	BECHTEL NATIONAL  BECHTEL NATIONAL SWDIV	DRAFT SCREENING RISK ASSESSMENT WORK PLAN MCAS TUSTIN	ADMIN RECORD	RA TECHNICAL DOC.	00001 00002 00003 00005 00006 00007 00008 00009 00011 00012 00013 00016 0013E 0013W MMS 03 MMS 04 MMS 05 OU 1 OU 2 OU 3	SOUTHWEST DIVISION
M62535 / 000013  LTR N68711-92-D4670 0005	06-19-1996 <b>10-16-1995</b> 00049 01.1	BECHTEL NATIONAL J. MATTHEWS SOUTHWEST DIVISION P. KENNEDY	INVESTIGATION-DERIVED WASTE - OPTIONS FOR DISPOSAL/DOCUMENT CONTROL # CTO-0049/0255	ADMIN RECORD	IDW	00001 00003 00005 00007 00012 00013 00016 OU 1 OU 2 OU 3	SOUTHWEST DIVISION

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M62535 / 000751  MM N6871192D467000 0010	04-02-1996 <b>10-25-1995</b> 00049 01.1	BECHTEL NATIONAL H. MASRI VARIOUS AGENCIES	MINUTES FROM OCTOBER 19, 1995 MEETING (FOURTH TELECON) HELD TO DISCUSS FIELD PROGRESS TO DATE AT SITES 1, 3, 5, 12, 13W AND PROPOSALS FOR ADDITIONAL FIELD WORK	ADMIN RECORD	MOFFETT TRENC MTG MINS PROPOSAL TECHNICAL DOC.	00001 00003 00005 0013W OU 1 OU 2 OU 3	SOUTHWEST DIVISION
M62535 / 000781  MM N68711-92-D4670 0040	04-03-1996 <b>10-25-1995</b> 00049 01.1	BECHTEL NATIONAL H. MASRI VARIOUS AGENCIES	MINUTES FROM OCTOBER 12, 1995 WORKING MEETING HELD TO DISCUSS PROGRESS TO DATE ON FIELD ACTIVITIES AT SITES 1, 3, 5, 12, 13W AND 16 (INCLUDES OVERSIZED MAPS)	ADMIN RECORD	MOFFETT TRENC MTG MINS TECHNICAL DOC.	00001 00003 00012 00016 13E 13W OU 1 OU 2 OU 3	SOUTHWEST DIVISION
M62535 / 000074  DATA N68711-92-D4670 0200	07-09-1996 <b>11-01-1995</b> 00049 01.1	BECHTEL NATIONAL W. MYERS SOUTHWEST DIVISION P. KENNEDY	IRP-3 SUMMARY DATA PACKAGE WORKING DRAFT	NON-ADMIN RECORD	IRP	00003 OU 1 OU 2	SOUTHWEST DIVISION
M62535 / 000075  DATA N68711-92-D4670 0200	07-09-1996 <b>11-01-1995</b> 00049 01.1	BECHTEL NATIONAL W. MYERS SWDIV P. KENNEDY	IRP-12 SUMMARY DATA PACKAGE WORKING DRAFT	NON-ADMIN RECORD	IRP	00012 OU 1 OU 2	SOUTHWEST DIVISION

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M62535 / 000765  MM N6871192D467000 0007	04-02-1996 <b>11-07-1995</b> 00049 01.1	BECHTEL NATIONAL H. MASRI VARIOUS AGENCIES	MINUTES FROM OCTOBER 26, 1995 MEETING HELD TO DISCUSS FIELD PROGRESS TO DATE AT SITES 1, 3, 5, 7, 13, 15 AND PROPOSALS FOR ADDITIONAL FIELD WORK	ADMIN RECORD	IRP MOFFETT TRENC MTG MINS TECHNICAL DOC. UST	00001 00003 00005 00007 00012 00016 0007N 0007S 0013E 0013W OU 1 OU 2 OU 3	SOUTHWEST DIVISION
M62535 / 000969  MISC N6871192D467000 0005	06-28-1996 <b>12-07-1995</b> 00049 01.1	BECHTEL NATIONAL H. MASRI SOUTHWEST DIVISION P. KENNEDY	LETTER TRANSMITTING DRAFT REPLACEMENT COPIES OF THE SUMMARY DATA PACKAGES FOR SITES 13W, AND 16 UNDER OPERABLE UNIT 2	ADMIN RECORD	TECHNICAL DOC.	00016 OU 2 PARCEL 13W	SOUTHWEST DIVISION
M62535 / 000706 CTO-0049/0333 ISPA N68711-92-D-4670 0100	01-26-1996 <b>12-11-1995</b> 00049 01.1	BECHTEL NATIONAL W. MYERS SOUTHWEST DIVISION	DRAFT FIELD SCREENING INDICATOR PARAMETERS AND INSTRUMENTATION ISSUE PAPER	ADMIN RECORD	MOFFETT TRENC TECHNICAL DOC.	00001 00003 00005 00007 00012 00013 00016 OU 1 OU 2 OU 3	SOUTHWEST DIVISION

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M62535 / 000144  GUID NONE 0050	06-18-1996 <b>12-14-1995</b> NONE 01.1	DTSC R. YEAMAN VARIOUS AGENCIES	LETTER SOLICITING APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS (ARARS)	ADMIN RECORD	ARAR MOFF. PUB PART	00001 00003 00005 00007 00012 00013 00016 OU 1 OU 2 OU 3	SOUTHWEST DIVISION
M62535 / 000927  LTR NONE 0011	06-27-1996 <b>12-15-1995</b> NONE 01.1	DTSC R. YEAMAN VARIOUS AGENCIES	LETTER WRITTEN SOLICITING INPUT FROM VARIOUS AGENCIES ON APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS	ADMIN RECORD	ARAR	00001 00002 00003 00004 00005 00006 00007 00008 00009 00010 00011 00012 00013 00014 00015 00016 OU 1 OU 2 OU 3	SOUTHWEST DIVISION

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M62535 / 000711 CTO-0063/0196 CRP N68711-92-D-4670 0100	01-26-1996 <b>12-20-1995</b> 00063 01.1	BECHTEL NATIONAL A. SCHWARTZ SWDIV P. KENNEDY	DRAFT FINAL UPDATED COMMUNITY RELATIONS PLAN (INCLUDES REVISED TRANSMITTAL SHEET)	ADMIN RECORD INFO REPOSITORY	ARAR BRAC CRP DERA EE/CA MEK NPL PA PR RAB RCRA RFA RFI ROD SARA SI SWMU UST VSI	1 OU 2	SOUTHWEST DIVISION

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M62535 / 000950  MISC NONE 0001	06-28-1996 <b>12-28-1995</b> NONE 10.0	TUSTIN NEWS P. STOKER PUBLIC	PUBLIC NOTICE ANNOUNCING JANUARY 9, 1996 BASE CLOSURE TASK FORCE MEETING	ADMIN RECORD	CLOSURE MEDIA MOFF. PUB PART PUBLIC NOTICE PUBLIC PART.	00001 00002 00003 00004 00005 00006 00007 00008 00009 00010 00011 00012 00013 00014 00015 00016 OU 1 OU 2 OU 3	SOUTHWEST DIVISION
M652535 / 000721 CTO-0049/0352 WKPL N68711-92-D-4670 0125	01-30-1996 <b>01-12-1996</b> 00049 01.1	BECHTEL NATIONAL W. MYERS SOUTHWEST DIVISION P. KENNEDY	DRAFT FINAL - RISK ASSESSMENT WORK PLAN, PART I - HUMAN HEALTH RISK ASSESSMENT (SEE AR # 731 FOR PART II) FINAL PER LETTER DATED 5 JAN. 1998 (SEE AR # 1598)	ADMIN RECORD	MOFFETT TRENC RA TECHNICAL DOC. WORKPLANS	00003 00005 00007 00012 00013 00016 0007N 0007S 0013E 0013W OU 1 OU 2 OU 3	SOUTHWEST DIVISION

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M62535 / 000731 CTO-0049/0352 PLAN N68711-92-D-4670 0250	01-01-2000 <b>01-24-1996</b> 00049 01.1	BECHTEL NATIONAL, INC. W. MYERS NAVFAC - SOUTHWEST DIVISION	DRAFT FINAL - RISK ASSESSMENT WORK PLAN, PART II - PREDICTIVE ECOLOGICAL RISK ASSESSMENT (PART I IS AR # 721) FINAL PER LETTER DATED 5 JAN. 1998 (SEE AR # 1598)	ADMIN RECORD	MOFFETT TRENC RA TECH. DOC. WORK PLAN	12 13 13E 13W 16 3 5 7 7N 7S OU 1 OU 2 OU 3	SOUTHWEST DIVISION
M62535 / 001783 NONE LTR NONE 0002	04-17-2000 <b>01-29-1996</b> NONE	DEPT. OF THE ARMY - ENG. CORPS M. DURHAM MCAS TUSTIN COMMANDING OFF.	LETTER STATING THAT ONLY DRAINAGES IDENTIFIED AS 5 SOUTH AND 5 NORTH ON THE INSTALLATION RESTORATION MAPS ARE SUBJECT TO ARMY JURISDICTION - THE REST ARE CONSIDERED IRRIGATION DITCHES AND NOT SUBJECT TO ARMY JURISDICTION	ADMIN RECORD	BRAC IRP WATER	OU 2	SOUTHWEST DIVISION

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M62535 / 000736 CTO-0063/0227 PLAN N68711-92-D-4670 0125	03-08-1996 <b>02-22-1996</b> 00063 01.1	BECHTEL NATIONAL A. SCHWARTZ SOUTHWEST DIVISION P. KENNEDY	FINAL UPDATED COMMUNITY RELATIONS PLAN	ADMIN RECORD INFO REPOSITORY	ARAR BRAC CRP DERA EE/CA MEK NPL PA PR RAB RCRA RFA RFI ROD SARA SI SWMU UST VSI	1 OU 2	SOUTHWEST DIVISION



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M62535 / 000920	06-27-1996	BECHTEL	BASE REALIGNMENT AND CLOSURE PLAN	ADMIN RECORD	BCP	00001	SOUTHWEST
	03-01-1996	NATIONAL	(BCP) FOR 1995, DATED MARCH 1996		BRAC	00002	DIVISION
BCP	NONE	H. MASRI			TECHNICAL DOC.	00003	
N68711-92-D4670	01.1	SWDIV				00004	
0000		P. KENNEDY				00005	
						00006	
						00007	
						00008	
						00009	
						00010	
						00011	
						00012	
						00013	
						00014	
						00015	
						00016	
						OU 1	
						OU 2	
						OU 3	

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M62535 / 000913  RPT N68711-92-D4670 0300	06-26-1996 <b>04-01-1996</b> NONE 01.1	BECHTEL NATIONAL J. YONEKURA VARIOUS AGENCIES	DRAFT ENVIRONMENTAL BASELINE SURVEY FOR PARCELS, 6, 8B, 11A, 33, 38, 39, 41A, AND 41B	ADMIN RECORD	EBS	00001 00002 00003 00006 00007 00008 00009 00011 00012 00016 0005N 0005S 0013E 0013W OU 1 OU 2 OU 3 PARCEL 11A PARCEL 33 PARCEL 38 PARCEL 39 PARCEL 41A PARCEL 41B PARCEL 6 PARCEL 8B	SOUTHWEST DIVISION
M62535 / 000850  MM N68711-92-D4670 0015	06-04-1996 <b>05-13-1996</b> 00049 01.1	BECHTEL NATIONAL H. MASRI VARIOUS AGENCIES	MINUTES OF APRIL 22-23 1996 BASE CLOSURE TEAM MEETING	ADMIN RECORD	BCT BRAC GROUNDWATER MOFFETT TRENC MTG MINS PRG TECHNICAL DOC.	00002 00007 00009 00016 0013W OU 1 OU 2 OU 3 UST 226 UST 28A	SOUTHWEST DIVISION

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M62535 / 001156  MM N68711-92-D-4670 0012	10-21-1996 <b>05-23-1996</b> 00039 1.6	BECHTEL NATIONAL H. MASRI SOUTHWEST DIVISION R.SELBY	MEETING MINUTES FOR THE TEAM BUILDING NO. 4 MEETING HELD ON MAY 16- 17, 1996 OFFICER'S CLUB	ADMIN RECORD	MTG MINS	00001 00007 OU 1 OU 2 OU 3	SOUTHWEST DIVISION
M62535 / 000865  MISC N68711-92D-4670 0002	06-10-1996 <b>06-04-1996</b> 0063A 10.3	BECHTEL NATIONAL H. MASRI SOUTHWEST DIVISION P. KENNEDY	RESTORATION ADVISORY BOARD JUNE 22, 1996 TOUR ANNOUNCEMENT	ADMIN RECORD	COMM REL MOFF. PUB PART PUBLIC PART. RAB	00001 00002 00003 00004 00005 00006 00007 00008 00009 00010 00012 00013 00014 00015 00016 OU 1 OU 2 OU 3	SOUTHWEST DIVISION
M62535 / 000994  MM N68711-92-D-4670 0015	07-10-1996 <b>06-25-1996</b> 00049 01.0	BECHTEL NATIONAL H. MASRI  VARIOUS AGENCIES	MAY 23, 1996 MINUTES OF THE BASE CLOSURE TEAM MEETING	ADMIN RECORD	BCT MOFFETT TRENC MTG MINS TECHNICAL DOC.	00001 0013W OU 1 OU 2 OU 3	SOUTHWEST DIVISION

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M62535 / 001039  LTR N68711-92-D-4670 0060	07-22-1996 <b>07-09-1996</b> 00049 00.0	BECHTEL NATIONAL H. MASRI SOUTHWEST DIVISION P. KENNEDY	LETTER TO THE REGULATORS REGARDING SOIL BACKGROUND VALUES [MAY 6, 1996 MEETING MINUTES WITH SWDIV, DTSC, AND EPA ATTACHED TO DOC NO. 993]	ADMIN RECORD	MTG MINS SOIL TECHNICAL DOC.	00001 00003 00005 00007 00012 00013 00016 OU 2 OU 3	SOUTHWEST DIVISION
M62535 / 001042  MM N68711-92-D-4670 0012	07-22-1996 <b>07-11-1996</b> 00074 01.0	BECHTEL NATIONAL H. MASRI SOUTHWEST DIVISION VARIOUS AGENCIES	MINUTES OF THE JUNE 26, 1996 SITE INVESTIGATION MEETING	ADMIN RECORD	MTG MINS SITE INVESTIGAT TECHNICAL DOC.	00001 00002 00003 00004 00006 00007 00008 00009 00010 00011 00012 00014 00015 00016 0005N 0005S 0013W OU 1 OU 2 OU 3	SOUTHWEST DIVISION

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M62535 / 000961 CTO-0049/0798, CTO-0074/0326, CTO-0081/0125 MM N68711-92-D-4670 0005	06-28-1996 <b>09-03-1996</b> 00049 10.2	BECHTEL NATIONAL  NAVFAC - SOUTHWEST DIVISION P. KENNEDY	MEETING MINUTES OF SEPTEMBER 3, 1996 TELECONFERENCE	ADMIN RECORD INFO REPOSITORY	AOC BCP COMMENTS DQO FOSL FOST FS RFA RI	1 13E 16 19 2 23 26 31 32 5 7S 9 BLDG 93 OU 2 OU 3	SOUTHWEST DIVISION
M62535 / 001147  MM N68711-92-D-4670 0010	10-21-1996 <b>09-17-1996</b> 00039 10.4	BECHTEL NATIONAL H. MASRI VARIOUS AGENCIES	MEETING MINUTES FROM THE SEPTEMBER 16, 1996 BCT MEETING	ADMIN RECORD	MOFFETT TRENC MTG MINS TECHNICAL DOC.	00001 00002 00009 OU 1 OU 2 OU 3	SOUTHWEST DIVISION
M62535 / 001152  LTR N68711-92-D-4670 0025	10-21-1996 <b>10-04-1996</b> 00049 10.3	BECHTEL NATIONAL H. MASRI SOUTHWEST DIVISION P. KENNEDY	PRE-READING MATERIAL FOR THE OCTOBER 22, 1996 BCT MEETING	ADMIN RECORD	BCT	00003 00012 OU 1 OU 2	SOUTHWEST DIVISION
M62535 / 001170  RESP N68711-92-D-4670 0020	12-02-1996 <b>10-10-1996</b> 00054 10.1	BECHTEL NATIONAL H. MASRI SWDIV R.SELBY	RESPONSE TO USEPA, DTSC AND RAB COMMENTS ON THE DRAFT ESI REPORT PLUS COVER LETTER SENT TO REGULATORS	ADMIN RECORD	COMMENTS ESI TECHNICAL DOC.	00002 00008 OU 2	SOUTHWEST DIVISION

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M62535 / 001179 CTO-0049/0793 RPT N68711-92-D-4670 0060	12-02-1996 <b>10-14-1996</b> 00049 03.4	BECHTEL NATIONAL H. MASRI SWDIV R.SELBY	DRAFT FINAL BACKGROUND CONCENTRATIONS OF METAL ISSUE PAPER	ADMIN RECORD	GROUNDWATER METALS SOIL TECHNICAL DOC.	00001 00003 00005 00007 00012 00013 00016 OU 1 OU 2 OU 3	SOUTHWEST DIVISION
M62535 / 001181 CTO-0049/0560 RPT N68711-92-D-4670 1000	12-02-1996 <b>10-16-1996</b> 00049 03.4	BECHTEL NATIONAL H. MASRI VARIOUS AGENCIES	DRAFT REMEDIAL INVESTIGATION REPORT VOLUME 1 THROUGH 5 PLUS COVER LETTER AND TRANSMITTAL TO BCT MEMBERS (INCLUDES DRAFT BACKGROUND SOILS AND GROUNDWATER REPORT & REPLACEMENT PAGES FOR SECTION 3, APPENDIX G, & APPENDIX X DATED 11/7/96)	ADMIN RECORD	AREA OF CONCE DATA DQOP ESI GROUNDWATER LAB MOFFETT TRENC REMEDIAL INVES RISK SOIL TECHNICAL DOC.	00003 00005 00007 00012 00013 00016 0013E 0013W OU 1 OU 2 OU 3	SOUTHWEST DIVISION
M62535 / 001233  LTR NONE 0001	03-06-1997 <b>11-18-1996</b> NONE 03.4	EPA SAN FRANCISCO D. HODGES VARIOUS AGENCIES	LETTER REQUESTING ADDITIONAL TIME TO REVIEW DRAFT REMEDIAL INVESTIGATION REPORT FOR OPERABLE UNITS 1 AND 2	ADMIN RECORD	OPERABLE UNIT REMEDIAL INVES TECHNICAL DOC.	OU 1 OU 2	SOUTHWEST DIVISION
M62535 / 001444  LTR NONE 0001	09-24-1997 <b>11-19-1996</b> 00049 3.6	EPA SAN FRANCISCO D. HODGES VARIOUS AGENCIES	USEPA REVIEW OF THE DRAFT REMEDIAL INVESTIGATION REPORT FOR OPERABLE UNITS 1 AND 2.	ADMIN RECORD	OPERABLE UNIT REMEDIAL INVES TECHNICAL DOC. USEPA	OU 1 OU 2	SOUTHWEST DIVISION

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M62536 / 001217  LTR NONE 0001	03-05-1997 <b>11-20-1996</b> NONE 3.6	MCAS TUSTIN D. CHANDLER VARIOUS AGENCIES	CONFIRMATION OF RECEIPT OF LETTER REQUESTING EXTENSION FOR COMMENTS REGARDING DRAFT REMEDIAL INVESTIGATION REPORT FOR OU1 AND 2, COMMENTS DUE DECEMBER 6, 1996	ADMIN RECORD	COMMENTS REMEDIAL INVES TECHNICAL DOC.	OU 1 OU 2	SOUTHWEST DIVISION
M62535 / 001439  LTR NONE 0009	09-24-1997 <b>12-01-1996</b> NONE 3.69	VARIOUS AGENCIES  VARIOUS AGENCIES	DATA PACKAGE INCLUDES DTSC AND EPA COMMENTS ON DRAFT REMEDIAL INVESTIGATION REPORT DATED OCTOBER 1996 DATES OF LETTERS THROUGH DEC 1996	ADMIN RECORD	COMMENTS FEASIBILITY STU. IRP OPERABLE UNIT REMEDIAL INVES RISK SITE INSPECTION TECHNICAL DOC. VOC	00003 00005 00006 00009 00012 00013 00016 MMS 05 OU 1 OU 2 ST 67 ST 72	SOUTHWEST DIVISION
M62535 / 001251  LTR NONE 0001	03-10-1997 <b>12-06-1996</b> NONE 04.2	EPA SAN FRANCISCO D. HODGES VARIOUS AGENCIES	REQUEST FOR EXTENSION REGARDING REVIEW AND COMMENTS ON THE DRAFT FEASIBILITY STUDY REPORT FOR OPERABLE UNITS 1 AND 2	ADMIN RECORD	COMMENTS FEASIBILITY STU. OPERABLE UNIT TECHNICAL DOC.	OU 1 OU 2	SOUTHWEST DIVISION
M652535 / 001253  LTR NONE 0001	03-10-1997 <b>12-12-1996</b> NONE 04.2	MCAS TUSTIN D. CHANDLER VARIOUS AGENCIES	CONFIRMATION OF RECEIPT OF REQUEST FOR EXTENSION REGARDING REVIEW OF THE DRAFT FEASIBILITY STUDY REPORT FOR OU 1 AND 2 COMMENTS DUE JANUARY 10TH, 1997	ADMIN RECORD	COMMENTS FEASIBILITY STU.	OU 1 OU 2	SOUTHWEST DIVISION

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M62535 / 001318  MM N68711-92-D-4670 0012	04-01-1997 <b>01-06-1997</b> 00063 10.4	BECHTEL NATIONAL H. MASRI DISTRIBUTION	OCTOBER 24, 1996 RESTORATION ADVISORY BOARD POST MEETING MATERIAL - MEETING MINUTES AND ATTACHMENTS	ADMIN RECORD	MTG MINS PUBLIC PART. RAB	00007 00013 00015 00016 0013S OU 1 OU 2 OU 3 ST 72	SOUTHWEST DIVISION
M62535 / 001352  LTR N68711-92-D-4670 0060	04-30-1997 <b>01-16-1997</b> 00049 03.4	BECHTEL NATIONAL H. MASRI VARIOUS AGENCIES	REQUEST FOR REVIEW OF APPENDIX N OF THE REMEDIAL INVESTIGATION REPORT WITH ATTACHMENT	ADMIN RECORD	REMEDIAL INVES TECHNICAL DOC.	OU 1 OU 2	SOUTHWEST DIVISION
M62535 / 001308  COMM NONE 0016	04-01-1997 <b>01-24-1997</b> 00049 10.1	DTSC LONG BEACH M. IBRAHIM VARIOUS AGENCIES	REVIEW COMMENTS ON THE REMEDIAL INVESTIGATION FEASIBILITY STUDY FOR OPERABLE UNIT 1 AND OPERABLE UNIT 2	ADMIN RECORD	COMMENTS FEASIBILITY STU. OPERABLE UNIT REMEDIAL INVES TECHNICAL DOC.	00003 00006 00009 00012 0007N 0007S 0013W MMS 05 OU 1 OU 2 ST 72	SOUTHWEST DIVISION
M62535 / 001350  LTR N68711-92-D-4670 0009	04-30-1997 <b>01-30-1997</b> 00063 10.3	BECHTEL NATIONAL H. MASRI SOUTHWEST DIVISION R.SELBY	JANUARY 30 1997 RESTORATION ADVISORY BOARD (RAB) PRE-MEETING MATERIAL (MEETING NOTICE AND DRAFT AGENDA) UNREDACTED VERSION AT SOUTHWEST DIVISION	ADMIN RECORD	COMMENTS NOTICE OPERABLE UNIT PUBLIC PART. RAB REMEDIAL INVES SURVEY	OU 1 OU 2	SOUTHWEST DIVISION



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M62535 / 001314  NOTE N68711-92-D-4670 0003	04-01-1997 <b>02-18-1997</b> 00063 10.3	BECHTEL NATIONAL H. MASRI SOUTHWEST DIVISION R.SELBY	FEBRUARY 27, 1997 RESTORATION ADVISORY BOARD PRE-MEETING MATERIALS (MEETING NOTICE AND DRAFT AGENDA)	ADMIN RECORD	MTG MINS PUBLIC PUBLIC PART. RAB	OU 1 OU 2 OU 3	SOUTHWEST DIVISION
M62535 / 001538  MM N68711-92-D-4670 0003	01-27-1998 <b>03-11-1997</b> 00063 00.0	BECHTEL NATIONAL H. MASRI VARIOUS AGENCIES	FEBRUARY 27, 1997 MEETING MINUTES	NON-ADMIN RECORD	IRP OPERABLE UNIT RAC ROD	00002 00009 0013W AST 169 AST 170 OU 1 OU 2	SOUTHWEST DIVISION
M62535 / 001398  MM N68711-92-D-4670 0023	05-21-1997 <b>04-09-1997</b> 00049 10.4	BECHTEL NATIONAL H. MASRI VARIOUS AGENCIES	MINUTES FROM THE APRIL 9, 1997 BCT MEETING	ADMIN RECORD	BCT MOFFETT TRENC MTG MINS TECHNICAL DOC.	00001 00006 00012 0013S 0013W MWA 18 OU 1 OU 2 OU 3 ST 72	SOUTHWEST DIVISION
M62535 / 001344  LTR NONE 0004	04-30-1997 <b>04-15-1997</b> 00049 03.4	EPA SAN FRANCISCO N. MOUTOUX VARIOUS AGENCIES	USEPA REVIEW OF THE DRAFT REMEDIAL INVESTIGATION REPORT FOR OPERABLE UNIT 1 & OPERABLE UNIT 2	ADMIN RECORD	OPERABLE UNIT REMEDIAL INVES TECHNICAL DOC.	OU 1 OU 2 OU 3	SOUTHWEST DIVISION

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M62535 / 001343 RESP N68711-92-D-4670 0027	04-30-1997 <b>04-21-1997</b> 00049 10.1	BECHTEL NATIONAL H. MASRI VARIOUS AGENCIES	RESPONSE TO BCT COMMENTS ON THE REMEDIAL INVESTIGATION REPORTS AND THE FEASIBILITY STUDY REPORTS	ADMIN RECORD	BCT COMMENTS FEASIBILITY STU. REMEDIAL INVES TECHNICAL DOC.	00003 00005 00006 00009 00012 00016 0007N 0007S 0013S 0013W DSS 01 DSS 02 MMS 05 OU 1 OU 2 OU 3 ST 67 ST 72	SOUTHWEST DIVISION
M62535 / 001415 CTO-0074/0344 RPT N68711-92-D-4670 0050	06-18-1997 <b>04-21-1997</b> 00074 01.1	BECHTEL NATIONAL J. GOUGE VARIOUS AGENCIES	DRAFT FINAL RCRA FACILITY ASSESSMENT REPORT, VOLUME 5 (ACCEPTED AS FINAL PER NOTIFICATION TO REGULATORS ON 1/5/98 - A.R. #1597)	ADMIN RECORD	RCRA TECHNICAL DOC.	AMS 04 DI 01 DSD 03 DSD 08 MDA 1 MDA 10 MDA 2 MDA 3 MDA 4 MDA 5 MDA 6 MDA 7 MDA 8 MDA 9 OU 2 OU 4	SOUTHWEST DIVISION

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M62535 / 001407  COMM N68711-92-D-4670 0011	06-16-1997 <b>05-01-1997</b> 00049 10.1	BECHTEL NATIONAL H. MASRI VARIOUS AGENCIES	RESPONSE TO SUBCOMMITTEE & CITY OF TUSTIN'S COMMENTS ON THE DRAFT REMEDIAL INVESTIGATION REPORT OPERABLE UNIT 1 AND 2	ADMIN RECORD	COMMENTS REMEDIAL INVES TECHNICAL DOC.	00001 00003 00005 00012 00013 00016 0013W OU 1 OU 2 ST 72	SOUTHWEST DIVISION
M62535 / 001437  LTR NONE 0002	09-22-1997 <b>05-22-1997</b> NONE 10.1	CITY OF TUSTIN D. OGDEN MCAS TUSTIN D. CHANDLER	FINAL RESPONSES TO SUBCOMMITTEE COMMENTS FOR DRAFT REMEDIAL INVESTIGATION REPORT OPERABLE UNITS 1 AND 2	ADMIN RECORD	COMMENTS OPERABLE UNIT REMEDIAL INVES	00003 00013 0013W OU 1 OU 2	SOUTHWEST DIVISION
M62535 / 001488  MM N68711-92-D-4670 0012	11-17-1997 <b>07-08-1997</b> 00049 10.4	BECHTEL NATIONAL H. MASRI VARIOUS AGENCIES	JUNE 24, 1997 BCT MEETING MINUTES	ADMIN RECORD	BCT COMMENTS EBS FOSL FOST GROUNDWATER MOFFETT TRENC MONITORING ROD TECHNICAL DOC.	00001 00002 00003 00012 00016 00105 0013S 0013W BLDG. 174 BLDG. 29 BLDG. 93 OU 1 OU 2 OU 3 PARCEL 18 PARCEL 33 UST 1 UST 29A UST 300	SOUTHWEST DIVISION

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M62535 / 001458 CTO-0049/1190, CTO-0085/0342, & CTO-0141/0065 MM N68711-92-D-4670 0014	09-29-1997 <b>07-24-1997</b> 00049 10.4	BECHTEL NATIONAL  NAVFAC - SOUTHWEST DIVISION	JULY 24, 1997 BCT MEETING MINUTES	ADMIN RECORD	AST BCT COMMENTS GW LF MONITORING MTG MINS PRG RAB RI RISK ROD TPH UST	1 12 13S 13W 16B 2 7 9 AST 169 AST 170 AST 227 AST 27 AST 28A AST 6169 B OU 1 OU 2 OU 3 PARCEL 33 ST 72 UST 181 UST 23 UST 27A UST 27B UST 42 UST 530 A	SOUTHWEST DIVISION
M62535 / 001469  COMM NONE 0027	11-11-1997 <b>07-28-1997</b> 00049 10.1	MCAS TUSTIN G. OPRIA VARIOUS AGENCIES	CAPTAIN GEORGE OPRIA'S COMMENTS ON RESPONSE TO COMMENTS ON OPERABLE UNIT 1 FEASIBILITY STUDY	ADMIN RECORD	BRAC COMMENTS FEASIBILITY STU. LEAD REMEDIAL INVES REUSE	00003 00012 0013S 0013W OU 1 OU 2 OU 3 ST 72	SOUTHWEST DIVISION

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M62535 / 001463  RESP NONE 0021	11-11-1997 <b>07-30-1997</b> 00049 10.1	BECHTEL NATIONAL D. TEDALDI VARIOUS AGENCIES	RESPONSES TO RAB SUBCOMMITTEE AND CITY OF TUSTIN COMMENTS ON THE MCAS TUSTIN OPERABLE UNIT 1 FEASIBILITY STUDY REPORT	ADMIN RECORD	BRAC FEASIBILITY STU. GROUNDWATER RAB REMEDIAL INVES TCE TPH	00003 00012 0013S OU 1 OU 2 ST 72	SOUTHWEST DIVISION
M62535 / 001464  RESP N68711-92-D-4670 0001	11-11-1997 <b>07-30-1997</b> 00049 10.1	BECHTEL NATIONAL D. TEDALDI VARIOUS AGENCIES	RESPONSES TO U.S. EPA COMMENTS ON THE MCAS TUSTIN IRP-13S INSERTS TO THE REMEDIAL INVESTIGATION REPORT	ADMIN RECORD	CANCER COMMENTS GROUNDWATER SOIL	0013S OU 1 OU 2	SOUTHWEST DIVISION
M62535 / 001467  RESP N68711-92-D-4670 0008	11-11-1997 <b>07-30-1997</b> 00049 10.1	BECHTEL NATIONAL D. TEDALDI VARIOUS AGENCIES	RESPONSES TO RAB SUBCOMMITTEE AND CITY OF TUSTIN COMMENTS ON THE MCAS TUSTIN IRP-13S INSERTS TO THE REMEDIAL INVESTIGATION REPORT	ADMIN RECORD	COMMENTS GROUNDWATER RAB REMEDIAL INVES SOIL	00003 00016 0013E 0013S 0013W OU 1 OU 2 ST 72	SOUTHWEST DIVISION
M62535 / 001552  RESP N68711-92-D-4670 0011	02-10-1998 <b>08-20-1997</b> 00049 10.1	BECHTEL NATIONAL D. TEDALDI VARIOUS AGENCIES	REVISED RESPONSES TO RAB SUBCOMMITTEE AND CITY OF TUSTIN COMMENTS ON OPERABLE UNIT 1 FEASIBILITY STUDY REPORT	ADMIN RECORD	COMMENTS FEASIBILITY STU. REMEDIAL INVES	00003 00012 0013S OU 1 OU 2 ST 72	SOUTHWEST DIVISION

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M62535 / 001507  MISC NONE 0075	12-03-1997 <b>08-21-1997</b> NONE 10.4	BECHTEL NATIONAL  VARIOUS AGENCIES	AUGUST 21, 1997 RESTORATION ADVISORY BOARD PRE-MEETING AND POST-MEETING MATERIAL (NOTICE, AGENDA AND ATTACHMENTS)	ADMIN RECORD	CLEANUP COMMENTS MOFFETT TRENC PUBLIC PART. RAB	00003 00012 00016 0013E 0013S 0013W OU 1 OU 2 OU 3 ST 72	SOUTHWEST DIVISION
M62535 / 001555  RESP N68711-92-D-4670 0006	02-10-1998 <b>11-10-1997</b> 00141 10.1	BECHTEL NATIONAL D. TEDALDI VARIOUS AGENCIES	DRAFT PAH APRON STUDY WORK PLAN - RESPONSE TO COMMENTS FROM USEPA	ADMIN RECORD	COMMENTS WORKPLANS	00009 APRON 1 APRON 4 HANGAR 1 OU 1 OU 2	SOUTHWEST DIVISION

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M62535 / 001505 CTO-0049/1165 RPT N68711-92-D-4670 1500	12-03-1997 <b>11-14-1997</b> 00049 03.4	BECHTEL NATIONAL M. DALRYMPLE SOUTHWEST DIVISION	DRAFT FINAL REMEDIAL INVESTIGATION REPORT FOR OPERABLE UNITS 1 AND 2 VOLUMES 1 THROUGH 5 (ACCEPTED AS FINAL PER 2/18/98 NOTIFICATION TO REGULATORS - REFER TO AR #'S 1593 & 1627) (INCLUDES REPLACEMENT PAGES OF 11/97 FOR VOL. 3, DCN# CTO- 0049/1241)	ADMIN RECORD	AREA OF CONCE CANCER GROUNDWATER IRP REMEDIAL INVES SOIL TCE TECHNICAL DOC. VOC	00001 00003 00005 00006 00007 00008 00009 00011 00012 00013 00016 0007N 0007S 0013E 0013S 0013W AST 169 AST 170 DSS 01 DSS 02 MDA 02 MDA 04 MMS 04 MMS 05 MWA 18 OU 1 OU 2 OU 3 ST 67 ST 72 TOW 18 A UST 29 A UST 90	SOUTHWEST DIVISION

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M62536 / 001598 CTO-0049/1230 LTR N68711-92-D-4670 0001	03-05-1998 <b>01-05-1998</b> 00049 01.6	BECHTEL NATIONAL D. TEDALDI VARIOUS AGENCIES	NOTIFICATION THAT DRAFT FINAL RISK ASSESSMENT WORK PLAN PARTS I & II DATED JAN. 1996 (SEE AR #'S 721 & 731) ARE CONSIDERED FINAL	ADMIN RECORD	MOFFETT TRENC RA TECH. DOC.	12 13 13E 13W 16 3 5 7 7N 7S OU 1 OU 2 OU 3	SOUTHWEST DIVISION



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M62535 / 001631 MM N68711-92-D-4670 0070	05-14-1998 <b>01-22-1998</b> 00155 10.4	BECHTEL NATIONAL D. TEDALDI DISTRIBUTION	JANUARY 22, 1998 RESTORATION ADVISORY BOARD PRE- AND POST- MEETING MATERIALS (PUBLIC NOTICE, AGENDA, MEETINGMINUTES, HANDOUTS)	ADMIN RECORD	IRP MOFF. PUB PART MTG MINS PAH RAB UST	00001 00002 00005 00009 00023 00026 00042 00047 00058 0007S 00135 0013W 00171 00181 00185 00222 0027A 00300 00530A 0133B AST 169 AST 170 OU 1 OU 2 OU 3	SOUTHWEST DIVISION
M62535 / 001627 RESP N68711-92-D-4670 0004	05-07-1998 <b>02-18-1998</b> 00141 10.1	BECHTEL NATIONAL D. TEDALDI VARIOUS AGENCIES	RESPONSE TO DTSC COMMENTS ON DRAFT FINAL REMEDIAL INVESTIGATION FOR OU 1 & OU 2 DATED NOVEMBER 1997 & NOTIFICATION THAT IT IS TO BE CONSIDERED A FINAL DOC. (REFER TO AR #'S 1505 & 1593)	ADMIN RECORD	COMMENTS REMEDIAL INVES	00005 0005N 0005S OU 1 OU 2	SOUTHWEST DIVISION

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M62535 / 001613  RPT N68711-92D4670 1000	04-28-1998 <b>03-01-1998</b> 00141 03.4	BECHTEL NATIONAL T. FENG SOUTHWEST DIVISION	DRAFT TECHNICAL MEMORANDUM: TCE- IN- SOIL CONFIRMATION SAMPLING, PILOT- SCALE EXTRACTION TEST, BENCH- SCALE COLUMN TEST, AND MODEL SENSITIVITY ANALYSIS	ADMIN RECORD	IRP TCE TECH MEMO	00003 00012 0013S BLDG. 174 BLDG. 20 B BLDG. 29 A BLDG. 514 MWA 18 OU 1 OU 2 ST 72	SOUTHWEST DIVISION

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M62535 / 001632	05-14-1998	BECHTEL	MARCH 12, 1998 RESTORATION ADVISORY	ADMIN RECORD	BCP	00002	SOUTHWEST DIVISION
	<b>03-12-1998</b>	NATIONAL	BOARD PRE- AND POST- MEETING		IRP	00003	
MM	00155	D. TEDALDI	MATERIALS (PUBLIC NOTICE, AGENDA,		MTG MIN	00005	
N68711-92-D-4670	10.4	DISTRIBUTION	MEETING MINUTES, HANDOUTS)		RAB	00006	
0080					UST	00008	
						00009	
						00011	
						00012	
						00042	
						00047	
						0007S	
						0013E	
						0013S	
						0013W	
						00185	
						00222	
						0023C	
						0027A	
						0027B	
						00300	
						00530A	
						AST 169	
						AST 170	
						HANGAR 1	
						HANGAR 2	
						OU 1	
						OU 2	
						OU 3	
						PARCEL 11A	
						PARCEL 33	
						PARCEL 38	
						PARCEL 39	
						PARCEL 41A	
						PARCEL 41B	
						PARCEL 6	

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						PARCEL 8 B PARCEL 8 C	
M62535 / 001642	06-16-1998	BECHTEL	DRAFT 1997 ANNUAL GROUNDWATER	ADMIN RECORD	GROUNDWATER	00001	SOUTHWEST
	<b>04-01-1998</b>	NATIONAL	MONITORING REPORT VOLUMES I AND II		IRP	00006	DIVISION
RPT	00141	T. FENG			MOFFETT TRENC	00008	
N68711-92-D-4670	03.4	VARIOUS			MONITORING	00011	
1000		AGENCIES			VOC	00012	
						00016	
						0013S	
						0013W	
						DSS 01	
						DSS 02	
						MDA 02	
						MMS 04	
						MMS 05	
						MWA 18	
						OU 1	
						OU 2	
						OU 3	
						ST 72	
						TOW 18 A	

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M62535 / 001641 CTO-0141/0244 RPT N68711-92-D-4670 0300	06-16-1998 <b>06-01-1998</b> 00141 03.4	BECHTEL NATIONAL T. FENG VARIOUS AGENCIES	FINAL PAH APRON STUDY REPORT	ADMIN RECORD	AOC IRP PAH TPH	00009 0007N 0007S 0009A 0009B AMS 04 AMW 01 A APRON 1 APRON 2 APRON 3 APRON 4 DSD 03 DSD 08 HANGAR 1 MDA 01 MDA 05 OU 2	SOUTHWEST DIVISION

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M62535 / 001644 RPT N68711-92-D-4670 1000	07-07-1998 <b>06-01-1998</b> 00085 01.4	BECHTEL NATIONAL S. BOBB VARIOUS AGENCIES	DRAFT BASEWIDE ENVIRONMENTAL BASELINE SURVEY	ADMIN RECORD	ESB IRP	00001 00002 00003 00004 00005 00006 00007 00008 00009 00010 00011 00012 00013 00014 00015 00016 0009B 0013S 0013W AST 169 AST 170 AST 194 A AST 194 B MMS 03 MMS 04 MMS 05 MWA 18 OU 1 OU 2 OU 3 ST 72	SOUTHWEST DIVISION

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M62535 / 001688  MM N68711-92-D-4670 0085	09-29-1998 <b>07-16-1998</b> 00155 10.4	BECHTEL NATIONAL D. TEDALDI VARIOUS AGENCIES	JULY 14, 1998 BCT MEETING MINUTES WITH HANDOUTS	ADMIN RECORD	BCT MTG MINS NO FURTH. ACTI	00003 00006 00012 0013S DSS 1 DSS 2 MDA 2 MMS 5 OU 1 OU 2 ST 67	SOUTHWEST DIVISION
M62535 / 001799 NONE PLAN NONE 0300	04-19-2000 <b>09-01-1998</b> NONE	THE PLANNING CENTER  CITY OF TUSTIN	SPECIFIC PLAN/REUSE PLAN (ERRATA)	ADMIN RECORD	BRAC PLAN	OU 2	SOUTHWEST DIVISION

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M62535 / 001713  RESP N6781192D4670 0024	01-13-1999 <b>10-22-1998</b> 00155 10.1	BECHTEL NATIONAL D. TEDALDI VARIOUS AGENCIES	RESPONSES TO BCT COMMENTS DATED JULY 2, JULY 6, AUGUST 14, 1998 ON THE WORKING DRAFT NO FURTHER ACTION PLAN	ADMIN RECORD	AREA OF CONCE BCT COMMENTS NO FURTH. ACTI	00002 00005 00006 00008 00011 00016 0013E 0013W AD 04 AS 06 AS 08 AST 02 AST 04 DSS 01 DSS 02 MDA 02 MDA 04 MDA 07 MMS 04 MMS 05 MWA 03 OU 1 OU 2 ST 67	SOUTHWEST DIVISION
M62535 / 001700  RPT N68711-92-D-4670 0085	12-31-1998 <b>12-01-1998</b> 00141 05.1	BECHTEL NATIONAL D. TEDALDI VARIOUS	DRAFT RECORD OF DECISION OPERABLE UNIT 3 MOFFETT TRENCHES AND CRASH CREW BURN PITS SITE	ADMIN RECORD	CRASH BURN PIT MOFFETT TRENC ROD	00001 OU 1 OU 2 OU 3	SOUTHWEST DIVISION



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M62535 / 001702 RPT N68711-92-D-4670 1000	12-31-1998 <b>12-18-1998</b> 00141 04.2	BECHTEL NATIONAL T. FENG VARIOUS AGENCIES	REVISED DRAFT FEASIBILITY STUDY REPORT FOR OPERABLE UNIT 1 (REFERENCE AR #1510 RESPONSE TO COMMENTS DRAFT FS REPORT; AR #1720, 3/2/99 DRAFT FEASIBILITY STUDY REPORT; AR #1731, RESPONSE TO COMMENTS ON 3/2/99 DRAFT FEASIBILITY STUDY REPORT)	ADMIN RECORD	FEASIBILITY STU. IRP VOC	00003 00012 0013S MWA 18 OU 1 OU 2 PETERS CAN ST 72	SOUTHWEST DIVISION
M62535 / 000029 CTO-0167/0071 RPT N68711-92-D-4670 0550	10-26-1999 <b>02-09-1999</b> 00167 03.4	BECHTEL NATIONAL INC T. FENG VARIOUS AGENCIES	DRAFT- TECHNICAL MEMORANDUM: PILOT - SCALE VACUUM-ENHANCED EXTRACTION TEST	ADMIN RECORD	GW MONITORING SOIL TCE TECH MEMO WELLS	12 13S 3 OU 1 OU 2	SOUTHWEST DIVISION

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M62535 / 001742 CTO-0167/0071 RPT N68711-92-D-4670 0500	04-17-2000 <b>02-09-1999</b> 00167	BECHTEL NATIONAL INC T. FENG NAVFAC - SOUTHWEST DIVISION R. SELBY	DRAFT TECHNICAL MEMORANDUM PILOT - SCALE VACUUM-ENHANCED EXTRACTION TEST (REFERENCE AR #1771, RESPONSE TO COMMENTS REGARDING TECHNICAL MEMORANDUM, ALSO INCLUDES REPLACEMENT PAGES DATED JULY 1999)	ADMIN RECORD	BCP BCT BRAC COPC DQO FID FS GAC IRP OU OVA PVC QAPP RI SAP SVE TCE TCP TOC TPH VEE VOC	12 13S 3 MWA 18 OU 1 OU 2	SOUTHWEST DIVISION

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M62535 / 001764 CTO-0170/0107 & CTO-0170/0195 RPT N68711-92-D-4670 0600	07-01-1999 <b>06-03-1999</b> 00170 00.0	BECHTEL NATIONAL D. TEDALDI SOUTHWEST DIVISION R. SELBY	DRAFT 1998 ANNUAL GROUNDWATER MONITORING REPORT, VOLUMES I & II (VOL. I REVISED FOR FINAL [AR #649] VOL. II OF THIS DOC. BECAME FINAL WITHOUT CHANGES ON 12/10/99)	ADMIN RECORD	AOC BCP BRAC COPC DCA DCB DCE DCP DMP DQO FS GW IRP MEMORANDUM MONITORING MTBE NFA PCE PRG QA QC RAB RFA RI ROD SI SOP TCE TCP TIC TPH UST VOC WATER WELLS	1 12 13S 3 OU 1 OU 2 OU 3	SOUTHWEST DIVISION

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M62535 / 001801 CTO-0155/0498 RPT N68711-92-D-4670 0033	04-19-2000 <b>07-01-1999</b> 00155	BECHTEL NATIONAL INC D. TEDALDI NAVFAC - SOUTHWEST DIVISION R. SELBY	REMEDIAL ACTION PLAN/PROPOSED PLAN FOR NO FURTHER ACTION AT TWENTY THREE IRP SITES AND AREAS OF CONCERN (INCLUDES RESPONSE TO COMMENTS OF THE USEPA, DTSC, AND SARWQCB)	ADMIN RECORD	AOC ARAR AST BRAC BTEX COPC DCE GW IRP METALS PAH PCB PCE PESTICIDES PRG RCRA RFA RI ROD SOIL SVOC TCE TPH TRPH VOC WATER	11 13E 13W 16 2 5N 5S 6 8 AD 04 AST 02 AST 04 BLDG 161 BLDG 19 BLDG 262 BLDG 263 BLDG 28 BLDG 71A BLDG 71G BLDG 71H BLDG 71I DSS 01 DSS 02 MDA 02 MDA 04 MDA 07 MMS 01 MMS 04 MMS 05 MWA 03 OU 1 OU 2 ST 67	SOUTHWEST DIVISION

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M62535 / 000540 CTO-0187/0057 PLAN N68711-92-D-4670 0110	12-16-1999 <b>11-18-1999</b> 00187 03.3	BECHTEL NATIONAL INC T. HEIRONIMUS VARIOUS AGENCIES	DRAFT – SITE MANAGEMENT PLAN	ADMIN RECORD INFO REPOSITORY	AOC GW RCRA SMP SOIL UST VOCs	1 11 12 13E 13S 13W 16 2 3 5 6 8 OU 1 OU 2 OU 3 OU 4	SOUTHWEST DIVISION
M62535 / 000816 CTO-0187/0065 MISC N68711-92-D-4670 0025	12-21-1999 <b>12-01-1999</b> 00187 02.5	BECHTEL NATIONAL INC T. HEIRONIMUS VARIOUS AGENCIES	ADDENDUM TO THE NON-TIME-CRITICAL REMOVAL ACTION MEMORANDUM/ REMOVAL ACTION WORK PLAN FOR OIL DISPOSAL AREA NAD HANGAR NO. 1 LINE SHACKS	ADMIN RECORD INFO REPOSITORY	ACTMEMO SOIL WORK PLAN	2 9 9B OU 2	SOUTHWEST DIVISION

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M62535 / 000805 NONE MISC N68711-92-D-4670 0006	12-17-1999 <b>12-06-1999</b> 00155 10.1	SOUTHWEST DIVISION  VARIOUS AGENCIES	RESPONSE TO COMMENTS ON DRAFT REMEDIAL ACTION PLAN/PROPOSED PLAN FOR NO FURTHER ACTION AT TWENTY- THREE IRP SITES AND AREAS OF CONCERN (REFERENCE AR #1624 DRAFT NO FURTHER ACTION PROPOSED PLAN)	ADMIN RECORD INFO REPOSITORY	AOC COMMENTS NFA RESPONSE	13E 2 9A 9B AD 04 AS 06 AS 08 AST 02 AST 04 MDA 04 MDA 07 MMS 01 MWA 03 OU 2	SOUTHWEST DIVISION
M62535 / 001806 CTO-0187/0083 MM N68711-92-D-4670 0100	04-19-2000 <b>12-09-1999</b> 00187	BECHTEL NATIONAL INC  NAVFAC - SOUTHWEST DIVISION R. SELBY	BRAC CLEANUP TEAM MEETING MINUTES FOR DECEMBER 9, 1999 - SITE MANAGEMENT PLAN, OU-1 FS, ADDENDUM TO SITES 9A/9B ACTION MEMO, OU-2 NFA PROPOSED PLAN, OU-3 UPDATE, OU-4 UPDATE, ST-7/8 CLOSURE REPORT, RAC UPDATE, MTBE UPDATE, & SCHEDULE OF DELIVERABLES	ADMIN RECORD	AOC ARAR BCP BRAC EE/CA FS GW METALS MTBE PAH PESTICIDES RFA RI ROD SOIL SVOC TCP TPH VOC	11 13W 16 2 5 6 8 9 MWA 18 OU 1 OU 2 OU 3 OU 4 ST 18B	SOUTHWEST DIVISION

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M62535 / 001792 NONE MISC NONE 0001	04-18-2000 <b>12-30-1999</b> NONE	LA TIMES  NAVFAC - SOUTHWEST DIVISION	PUBLIC NOTICE REGARDING THE PROPOSED PLAN/DRAFT REMEDIAL ACTION PLAN FOR NO FURTHER ACTION - THREE IRP SITES AND NINE AREAS OF CONCERN; PUBLIC REVIEW AND COMMENT PERIOD 1/2/00 THROUGH 1/31/00; PUBLIC MEETING 1/13/00	ADMIN RECORD	AOC BCT BRAC IRP RAP RI	13E 2 9 AD 04 AS 06 AS 08 AST 02 AST 04 MDA 04 MDA 07 MMS 01 MWA 03 OU 2	SOUTHWEST DIVISION
M62535 / 001793 NONE MISC NONE 0002	04-18-2000 <b>01-06-2000</b> NONE	LOS ANGELES TIMES  VARIOUS	PUBLIC NOTICE OF MEETING REGARDING NO FURTHER ACTION RECOMMENDATION PROPOSED PLAN/DRAFT REMEDIAL ACTION PLAN THREE IRP SITES AND NINE AREAS OF CONCERN; RESTORATION ADVISORY BOARD (RAB) MEETING, 1/13/00	ADMIN RECORD	AOC IRP OU RAB RCRA	13E 2 9 AD 04 AS 06 AS 08 AST 02 AST 04 MDA 07 MMS 01 MWA 03 OU 2 OU 4	SOUTHWEST DIVISION

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M62535 / 001796 NONE MISC NONE 0002	04-18-2000 <b>01-06-2000</b> NONE	ORANGE COUNTY REGISTER  VARIOUS PUBLIC	PUBLIC NOTICE OF MEETING REGARDING NO FURTHER ACTION RECOMMENDATION PROPOSED PLAN/DRAFT REMEDIAL ACTION PLAN THREE IRP SITES AND NINE AREAS OF CONCERN; RESTORATION ADVISORY BOARD (RAB) MEETING, 1/13/00	ADMIN RECORD	AOC BCT BRAC RAB RCRA	13E 2 9 AD 04 AS 06 AS 08 AST 02 AST 04 MDA 04 MDA 07 MMS 01 MWA 03 OU 2 OU 4	SOUTHWEST DIVISION



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M62535 / 001777 CTO-0200/0017 MM N68711-92-D-4670 0021	04-17-2000 <b>01-13-2000</b> 00200	BECHTEL NATIONAL INC  NAVFAC - SOUTHWEST DIVISION R. SELBY	RESTORATION ADVISORY BOARD (RAB) MEETING, INCLUDES MEETING MINUTES OF 10/14/99, SIGN IN SHEET, AND MAILING LIST PARTS OF WHICH SHOULD BE CONSIDERED CONFIDENTIAL	ADMIN RECORD CONFIDENTIAL INFO REPOSITORY	AOC AST BCP BRAC FOSL FS GW IRP RAB RAP RCRA ROD SOIL TDU UST VOC	1 12 13E 13S 2 3 9 AD 04 AS 06 AS 08 AST 02 AST 04 BLDG 149 BLDG 186 BLDG 520 MDA 04 MDA 07 MMS 01 MWA 03 OU 1 OU 2 OU 3 OU 4 UST 105 UST 222	SOUTHWEST DIVISION

UIC No. / Rec. No. Doc. Control No. Record Type Contr./Guid. No. Approx. # Pages	Prc. Date Record Date CTO No. EPA Cat. #	Author Affil. Author Recipient Affil. Recipient	Subject	Classification	Keywords	Sites	Location Box No.
M62535 / 001048 SW6335 & SW6335.1 RPT N68711-93-D-1459 0810	03-28-2000 <b>01-21-2000</b> DO032	OHM REMEDATION SERVICES CORP. C. JOHNSON NAVFAC - SOUTHWEST DIVISION B. DEMAREE	DRAFT CLOSURE REPORT - SOIL REMOVAL ACTIONS AT HANGAR NO. 1, SUBAREAS 1 & 2; AND APRON 1, SUBAREAS 1 & 3 (SEE AR #1701 - CONTRACTOR RESPONSE TO NAVY COMMENTS & AR #1717 CONTRACTOR RESPONSE TO EPA AND DTSC COMMENTS)	ADMIN RECORD	ARAR COPC DTSC EE/CA IRP PAH PCB SI SOIL TPH TRPH VOC	9A 9B OU 2 ST-47A ST-47B	SOUTHWEST DIVISION

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M62535 / 001807 CTO-0187/0084 MM N68711-92-D-4670 0071	04-21-2000 <b>02-23-2000</b> 00187	BECHTEL NATIONAL INC  NAVFAC - SOUTHWEST DIVISION R. SELBY	BCT MEETING MINUTES FOR JANUARY 13, 2000 - TUSTIN INSTALLATION RESTORATION PROGRAM (IRP) AND RCRA SITE CLOSURE (INCLUDES NOTICE OF PUBLIC MEETING FOR 1/13/00)	ADMIN RECORD INFO REPOSITORY	DCE FOSL FS IRP MTBE PAH ROD TCE TCP UST VOC WELLS	11 12 13S 13W 3 5 5A 6 8 9A BLDG 189 BLDG 199 BLDG 250 BLDG 28 BLDG 4 BLDG 50 BLDG 517 DSS 01 DSS 02 MDA 02 MMS 04 MMS 05 MWA 02 MWA 05 MWA 12 MWA 13 OU 1 OU 2 OU 3 OU 4 TOW 11 TOW 12 TOW 6	SOUTHWEST DIVISION

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M62535 / 001044 CTO-200/0043 MM N68711-92-D-4670 0017	03-24-2000 <b>03-01-2000</b> 00200	BECHTEL NATIONAL INC.  NAVFAC - SOUTHWEST DIVISION R. SELBY	RESTORATION ADVISORY BOARD MEETING; INCLUDES MEETING MINUTES OF JANUARY 13, 2000, MEETING SIGN-IN SHEETS, AND MAILING LIST PARTS OF WHICH SHOULD BE CONSIDERED CONFIDENTIAL	ADMIN RECORD CONFIDENTIAL	AOC FS IRP RAB RCRA UST	11 12 13E 13S 16 3 5N 5S A 5S B 6 8 DSD 7 HANGAR 190 HANGAR 524 MWA 18 OCY 1 OU 1 OU 2 OU 3 OU 4	SOUTHWEST DIVISION

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M62535 / 000977 CTO-0141/0597 PLAN N68711-92-D-4670 0170	03-24-2000 <b>03-14-2000</b> 00141	BECHTEL NATIONAL INC. T. HEIRONIMUS NAVFAC - SOUTHWEST DIVISION R. SELBY	DRAFT RECORD OF DECISION / REMEDIAL ACTION PLAN - NO ACTION SITES AND AREAS OF CONCERN (REFERENCE AR #000729; PROPOSED DRAFT RAP & A/R #805 RESPONSE TO COMMENTS RE: RAP)	ADMIN RECORD	AOC DCA DDD DDE DDT FS IRP MEK PAH PCA PCB PCE RISK ASSESSME ROD SVOC SWMU TCA TCE TPH TRPH UST VOC VSI	AD 04 AS 06 AS 08 AST 02 AST 04 IRP 13E IRP 2 IRP 9A IRP 9B MDA 04 MDA 07 MMS 01 MWA 03 OU 2	SOUTHWEST DIVISION
M62535 / 000820 CTO-0200/0071 MM N68711-92-D-4670 0022	03-22-2000 <b>05-18-2000</b> 00200	BECHTEL NATIONAL INC  NAVFAC - SOUTHWEST DIVISION R. SELBY	RESTORATION ADVISORY BOARD (RAB) PRE-MEETING MATERIALS FOR MAY 18, 2000 MEETING INCLUDING: RAB MAILER, RAB MEETING NOTICE, AGENDAS, MARCH 9, 2000 MEETING MINUTES AND SIGN IN SHEETS, & MAILING LIST - PARTS OF WHICH SHOULD BE CONSIDERED CONFIDENTIAL	ADMIN RECORD CONFIDENTIAL	AOC AST FS LF MONITORING MTBE RAB ROD	1 6 OU 2 OU 3 OU 4	SOUTHWEST DIVISION

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M62535 / 001693 SW8368 RPT N68711-93-D-1459 0700	10-06-1998 <b>05-18-2000</b> DO032 03.4	OHM REMEDATION SERVICES CORP C. JOHNSON NAVFAC - SOUTHWEST DIVISION	DRAFT FINAL CLOSURE REPORT SOIL REMOVAL ACTIONS AT HANGAR NO. 1 LINE SHACKS, SUBAREAS 1 AND 2, APRON 1, SUBAREAS 1 AND 3, INCLUDING TEMPORARY STORAGE UNITS ST-40A, ST- 40B, ST-40C, ST-43, ST-44, ST-47A, AND ST- 47B	ADMIN RECORD INFO REPOSITORY	ARAR BCP BCT COPC EE/CA LUFT NFA NTCRA PAH PCB PRG QC RAP RCRA REMOVAL RISK SI SOIL SVOC TIC TPH TRPH VOC	9A 9B BLDG 178 BLDG 179 BLDG 201 BLDG 207 BLDG 260 BLDG 261 OU 2	SOUTHWEST DIVISION

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M62535 / 001781 CTO-0085/0618 RPT N68711-92-D-4670 0600	04-17-2000 <b>05-18-2000</b> 00085	BECHTEL NATIONAL INC. T. SHERMAN NAVFAC - SOUTHWEST DIVISION	DRAFT FINAL BASEWIDE ENVIRONMENTAL BASELINE SURVEY	ADMIN RECORD INFO REPOSITORY	AOC AOPC ASBESTOS AST BCP BCT BRAC BTEX CO COPC DCA DCP EBS EE/CA FOSL FOST FS GW HRA IAS LUFT MTBE NFA PAH PBR PCB PCE PRG RA RCRA RFA RI ROD SI SV	1 11 12 13 13E 13S 13W 16 2 3 5 5N 5S 6 8 9 9A 9B OU 1 OU 2 OU 3 OU 4	SOUTHWEST DIVISION

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M62535 / 001800 NONE MEMO N68711-93-D-1459 0003	04-19-2000 <b>05-18-2000</b> DO103	IT GROUP/OHM REMEDATION M. SMITH MCAF TUSTIN K. FORMAN	FINAL MEMORANDUM TO SUMMARIZE REMEDIAL ACTIVITIES - SCREENING RISK ASSESSMENT	ADMIN RECORD	SVE SVOC SWMU TCE TCP TPH TRPH TSDF UST VOC VSI  ARSENIC CANCER COPC GW METALS NFA PAH PCB PRG RA RCRA RFA RISK ROD SOIL SOIL BORING TPH VOC	MWA 03 OU 2	SOUTHWEST DIVISION
AND UIC=M62535 No Keywords Sites=OU 2							



# **SPECIAL COLLECTION INDEX**

## **OPERABLE UNIT 2**

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### **PUBLIC PARTICIPATION DOCUMENTS**

**DRAFT ADMINISTRATIVE RECORD FILE INDEX - UPDATE (SORTED BY RECORD DATE/RECORD NUMBER)**  
**MCAS Tustin**  
**PUBLIC PARTICIPATION INDEX FOR MCAF TUSTIN**

UIC No. / Rec. No. Doc. Control No. Record Type Contr./Guid. No. Approx. # Pages	Prc. Date Record Date CTO No. EPA Cat. #	Author Affl. Author Recipient Affil. Recipient	Subject	Classification	Keywords	Sites	Location Box No.
M62535 / 001299  PERM NONE 0008	03-26-1997 <b>01-05-1984</b> NONE 11.5	COUNTY OF ORANGE R. BURK IT CORPORATION S. DINEEN	RESPONSE TO REQUEST FOR PUBLIC PROPERTY ENCROACHMENT PERMIT REQUEST FOR ADDITIONAL INFORMATION	ADMIN RECORD	PERMIT		SOUTHWEST DIVISION
M62535 / 000203  CLTR NONE 0001	10-06-1994 <b>12-26-1984</b> NONE 01.0	RWQCB RIVERSIDE  MCAS TUSTIN R. M. COOKE	NOTICE OF PUBLIC HEARING & APPLICATION FOR WASTE DISCHARGE REQUIREMENTS, STATEMENT OF POSTING & TENTATIVE ORDER #85-9(REF. DOC #000204)	ADMIN RECORD	MEDIA MOFF. PUB PART PUBLIC NOTICE PUBLIC PART.	00001 OU 3	SOUTHWEST DIVISION
M62535 / 000204  NOTE NONE 0001	10-06-1994 <b>01-11-1985</b> NONE 03.5	MCAS TUSTIN B. VANCLEEF CRWQCB - SANTA ANA	STATEMENT OF POSTING NOTICE ENCLOSURE TO JB LEAP'S LETTER TO CRWQCB DATED JANUARY 14, 1985 REFERENCE DOCUMENT # 000205	ADMIN RECORD	MOFFETT TRENC WD	00001 OU 3	SOUTHWEST DIVISION
M62535 / 000205  LTR NONE 0001	10-06-1994 <b>01-14-1985</b> NONE 03.5	MCAS EL TORO J. B. LEAP CRWQCB SANTA ANA J. W. ANDERSON	RESPONSE TO CRWQCB'S LETTER DATED DECEMBER 26, 1984 CONCERNING POSTING OF "NOTICE OF WASTE DISCHARGE ORDER NO.85-9" REF. DOC # 000203	ADMIN RECORD	MOFFETT TRENC WD	00001 OU 3	SOUTHWEST DIVISION
M62535 / 000261  NOTE NONE 0001	10-06-1994 <b>02-08-1985</b> NONE 10.3	U.S. MARINE CORPS  CRWQCB - SANTA ANA	NOTICE OF PUBLIC HEARING AND APPLICATION FOR WASTE DISCHARGE REQUIREMENTS	ADMIN RECORD	MEDIA MOFF. PUB PART PERMIT PUBLIC PART.	00001 OU 3	SOUTHWEST DIVISION

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M62535 / 000086  GUID NONE 0002	10-06-1994 <b>03-05-1985</b> NONE 01.1	CNO DON MCAS TUSTIN DISTRIBUTION	MEMO TO ENSURE THE CONFORMITY OF ALL NAMED INSTALLATIONS CONCERNING THE RELEASE OF NACIP STUDIES TO THE PUBLIC (HAZWASTE SITE CLEANUP)	NON-ADMIN RECORD	HAZ WASTE		SOUTHWEST DIVISION
M62535 / 000494  NEWS NONE 0002	05-31-1995 <b>04-08-1985</b> NONE 10.3	LA TIMES G.M. BUSH PUBLIC	NEWSPAPER ARTICLE "TWO CHEMICAL SPILLS POUR POLLUTANTS INTO UPPER NEWPORT BAY"	ADMIN RECORD	ARTICLE MOFF. PUB PART PUBLIC PART.		SOUTHWEST DIVISION
M62535 / 000495  NEWS NONE 0001	05-31-1995 <b>04-08-1985</b> NONE 10.3	O.C. REGISTER A. SNOW PUBLIC	NEWSPAPER ARTICLE "SPILLED SOLVENT KILLS FISH IN THE UPPER BAY: LEAK IS TRACED TO TUSTIN AIR STATION"	ADMIN RECORD	ARTICLE MOFF. PUB PART PUBLIC PART. SOLVENTS		SOUTHWEST DIVISION
M62535 / 000496  NEWS NONE 0001	05-31-1995 <b>04-08-1985</b> NONE 10.3	O.C. REGISTER C. LACHNIT PUBLIC	NEWSPAPER ARTICLE "SOLVENT FLOW IS MOST OF RECENT CONTAMINATION OF UPPER BAY"	ADMIN RECORD	ARTICLE MOFF. PUB PART PUBLIC PART. SOLVENTS		SOUTHWEST DIVISION
M62535 / 000492  NEWS NONE 0001	05-31-1995 <b>04-09-1985</b> NONE 10.3	LA TIMES D. PALERMO PUBLIC	NEWSPAPER ARTICLE "MARINES CRITICIZED AFTER SPILL INTO BAY"	ADMIN RECORD	ARTICLE MEDIA MOFF. PUB PART PUBLIC PART.		SOUTHWEST DIVISION
M62535 / 000493  NEWS NONE 0002	05-31-1995 <b>04-09-1985</b> NONE 10.3	O.C. REGISTER M. CONE PUBLIC	NEWSPAPER ARTICLE "SPILL HAD BUILT UP AT MARINE BASE"	ADMIN RECORD	ARTICLE MEDIA MOFF. PUB PART PUBLIC PART.		SOUTHWEST DIVISION

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M62535 / 000252  PROC NONE 0017	10-06-1994 <b>10-11-1985</b> NONE 07.3	CRWQCB SANTA ANA  MCAS TUSTIN	HEARING-CONSIDER ACTION OF TIME SCHED FOR COMPLIANCE IN CLEANUP/ABATEMENT ORDER 85-15885-74 FOR CLEANUP OF DISCHARGE OF POLLUTANTS FROM "BURNING PITS" @ BASE	ADMIN RECORD	AO CRASH BURN PIT MOFFETT TRENC	00001 OU 3	SOUTHWEST DIVISION
M62535 / 000450  MISC NONE 0004	04-18-1995 <b>03-13-1987</b> NONE 10.5	RWQCB-SANTA ANA J. BENNETT MCAS TUSTIN	NOTICE OF PUBLIC FORUM FOR USMC MCAS TUSTIN REMEDIAL ACTION PLAN MOFFETT TRENCHES AND CRASH CREW PITS (DATE ASSUMED; MEETING HELD MARCH 3, 1987)	ADMIN RECORD	CRASH BURN PIT IRP MOFF. PUB PART MOFFETT TRENC PUBLIC NOTICE RA	00001 OU 3	SOUTHWEST DIVISION
M62535 / 000230  LTR NONE 0001	10-06-1994 <b>09-14-1987</b> NONE 03.5	WESTERN S. S. SUNDERLAND IRWD L. HOWARD	NOTICE TO ALL CONCERNED: UPCOMING SEPTEMBER 25, 1987 MEETING; RESULTS OF PRELIMINARY FIELD TESTING CONDUCTED AROUND FUEL FARM AREA TO BE PRESENTED	ADMIN RECORD	FUEL FARM MEDIA PUBLIC PART.	00016	SOUTHWEST DIVISION
M62535 / 000260  NOTE NONE 0004	10-06-1994 <b>12-31-1987</b> NONE 10.3	CRWQCB	NOTICE OF PUBLIC FORUM REMEDIAL ACTION PLAN MOFFETT TRENCHES AND CRASH CREW PITS (YEAR OF ISSUE KNOWN)	ADMIN RECORD	COMM REL MOFF. PUB PART MOFFETT TRENC PERMIT PUBLIC NOTICE	00001 OU 3	SOUTHWEST DIVISION
M62535 / 001296  LTR NONE 0008	03-26-1997 <b>01-05-1988</b> NONE 10.5	SOUTHWEST DIVISION S. SUNDERLAND VARIOUS AGENCIES	NOTICE OF MEETING TO DISCUSS THE WORK COMPLETED AT THE FUEL FARM	ADMIN RECORD	FUEL MEDIA PUBLIC PART.		SOUTHWEST DIVISION
M62535 / 001070  DWG NONE 0006	07-24-1996 <b>02-17-1988</b> NONE 00.0	CITY OF TUSTIN  BECHTEL NATIONAL	PRELIMINARY CITY OF TUSTIN JAMBOREE ROAD EXTENSION, DEPARTMENT OF PUBLIC WORKS	ADMIN RECORD	MOFFETT TRENC	OU 3	SOUTHWEST DIVISION

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M62535 / 001294  LTR NONE 0004	03-26-1997 <b>03-31-1988</b> NONE 11.3	MCAS EL TORO S. HOLM CRWQCB - SANTA ANA	REQUEST FOR REPRESENTATIVES TO ESTABLISH A TECHNICAL REVIEW COMMITTEE (TRC) AS REQUIRED BY THE SUPERFUND AMENDMENT AND REAUTHORIZATIONS ACT OF 1986 (SARA)	ADMIN RECORD	MOFF. PUB PART PUBLIC PART. TRC		SOUTHWEST DIVISION
M62535 / 000379  MISC NONE 0001	12-20-1994 <b>04-27-1988</b> NONE 01.1	TRC  MCAS TUSTIN	TECHNICAL REVIEW COMMITTEE ROSTER FOR BOTH EL TORO AND TUSTIN	ADMIN RECORD	MOFF. PUB PART PUBLIC PART. TRC	00013	SOUTHWEST DIVISION
M62535 / 001290  LTR NONE 0001	03-26-1997 <b>07-12-1988</b> NONE 10.1	MCAS EL TORO S. HOLM RWQCB - SA J. BENNETT	SECOND REQUEST FOR COMMENTS ON THE CONFIRMATION STUDY WORK PLAN AND FOR A DESIGNATED INDIVIDUAL TO BECOME A MEMBER OF THE TECHNICAL REVIEW COMMITTEE	ADMIN RECORD	COMMENTS CONFIRM. STUDY MOFF. PUB PART PUBLIC PART. TRC WORKPLANS		SOUTHWEST DIVISION
M62535 / 000377  NOTE NONE 0001	12-20-1994 <b>09-29-1988</b> NONE 10.4	TRC  MCAS TUSTIN	TRC MEETING MINUTES (HANDWRITTEN) - BASIC REVIEW OF FUEL FARM AREA REMEDIAL INVESTIGATION	ADMIN RECORD	FUEL MTG MINS PUBLIC PART. REMEDIAL INVES RI TRC	00016	SOUTHWEST DIVISION
M62535 / 000373  LTR NONE 0035	12-20-1994 <b>10-28-1988</b> NONE 01.1	R F WEMHEUER  GREG CZAJKOWSKI	WRITTEN STATUS OF THE CORRECTIVE ACTIONS ON THE FACILITY NOTICE OF NONCOMPLIANCE (NON)	ADMIN RECORD	PCB		SOUTHWEST DIVISION
M62535 / 000313  GUID NONE 0002	10-06-1994 <b>05-01-1990</b> NONE 11.1	US EPA SAN FRANCISCO	A GUIDE TO DEVELOPING SUPERFUND PROPOSED PLANS DIR. 9335.3-02FS-2	ADMIN RECORD	MOFF. GUID TECH/GUID/DOC.		SOUTHWEST DIVISION

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M62536 / 000255  LTR NONE 0019	10-06-1994 <b>08-06-1990</b> NONE 07.7	EPA SAN FRANCISCO J. ZELIKSON MCAS TUSTIN P. S. JOHNSON	COVER LETTER AND NOTICE OF NONCOMPLIANCE EPA ID # CA0170090022	ADMIN RECORD	NON		SOUTHWEST DIVISION
M62535 / 000365  MISC NONE 0001	12-19-1994 <b>03-20-1991</b> NONE 10.4	JACOBS ENGINEERING  SOUTHWEST DIVISION	TECHNICAL REVIEW COMMITTEE MEETING AGENDA FOR MARCH 201991 MEETING	ADMIN RECORD	COMM REL MOFF. PUB PART PUBLIC PART. TRC		SOUTHWEST DIVISION
M62535 / 000303  GUID NONE 0003	10-06-1994 <b>04-01-1991</b> NONE 11.1	EPA SAN FRANCISCO	GUIDE TO ADDRESSING PRE-ROD AND POST-ROD CHANGES PUB. 9355.3-02FS-4	ADMIN RECORD	GUIDE		SOUTHWEST DIVISION
M62535 / 000304  GUID NONE 0003	10-06-1994 <b>04-01-1991</b> NONE 11.1	US EPA SAN FRANCISCO	GUIDE TO DEVELOPING SUPERFUND NO ACTION, INTERIM ACTION, AND CONTINGENCY REMEDY RODS PUB 9355.3-02FS-3	ADMIN RECORD	MOFF. GUID TECH/GUID/DOC.		SOUTHWEST DIVISION
M62535 / 000292  GUID NONE 0004	10-06-1994 <b>07-01-1991</b> NONE 11.1	US EPA SAN FRANCISCO	ARARS QS & AS: GENERAL POLICY: RCRA, CWA, SDWA, POST-ROD INFORMATION AND CONTINGENT WAIVERS PUB. 9234.2- 01/FS-A	ADMIN RECORD	MOFF. GUID TECH/GUID/DOC.		SOUTHWEST DIVISION
M62535 / 000273  GUID NONE 0001	10-06-1994 <b>08-01-1991</b> NONE 11.1	EPA SAN FRANCISCO	STRUCTURE AND COMPONENTS OF FIVE- YEAR REVIEWS QUICK REFERENCE FACT SHEET DIR. 9355.7-02FSI	ADMIN RECORD	GUIDE		SOUTHWEST DIVISION

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M62535 / 000974  GUID NONE 0100	07-02-1996 <b>10-02-1991</b> NONE 00.0	USEPA	FEDERAL AND STATE AGENCIES ADMINISTRATIVE RECORD WORKSHOP	NON-ADMIN RECORD	AR INDEX		SOUTHWEST DIVISION
M62535 / 000274  GUID NONE 0003	10-06-1994 <b>09-01-1992</b> NONE 11.1	US EPA SAN FRANCISCO	SUPERFUND FACT SHEET: EXPOSURE PATHWAYS PUB 9230.0-05FSB	ADMIN RECORD	GUIDE MOFF. GUID TECH/GUID/DOC.		SOUTHWEST DIVISION
M62535 / 000275  GUID NONE 0002	10-06-1994 <b>09-01-1992</b> NONE 11.1	US EPA SAN FRANCISCO	SUPERFUND FACT SHEET: TRICHLOROETHYLENE PUB 9230.0-5FSC	ADMIN RECORD	MOFF. GUID TECH/GUID/DOC.		SOUTHWEST DIVISION
M62535 / 000276  GUID NONE 0002	10-06-1994 <b>09-01-1992</b> NONE 11.1	US EPA SAN FRANCISCO	SUPERFUND FACT SHEET: ARSENIC PUB. 9230.0-05FSA	ADMIN RECORD	MOFF. GUID TECH/GUID/DOC.		SOUTHWEST DIVISION
M62535 / 000278  GUID NONE 0002	10-06-1994 <b>09-01-1992</b> NONE 10.6		SUPERFUND FACT SHEET: BENZENE PUB. 9230.0-05FSD	ADMIN RECORD	MOFF. GUID TECH/GUID/DOC.		SOUTHWEST DIVISION
M62535 / 000280  GUID NONE 0002	10-06-1994 <b>09-01-1992</b> NONE 11.1	US EPA SAN FRANCISCO	SUPERFUND FACT SHEET: PCBS PUB. 9230.0-05FSI	ADMIN RECORD	MOFF. GUID TECH/GUID/DOC.		SOUTHWEST DIVISION

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M62535 / 000285  GUID NONE 0014	10-06-1994 <b>09-01-1992</b> NONE 11.1	US EPA SAN FRANCISCO	ARAS FACT SHEET COMPLIANCE WITH CLEAN AIR ACT AND ASSOCIATED AIR QUALITY REQUIREMENTS PUB. 9234.2- 22FS	ADMIN RECORD	MOFF. GUID TECH/GUID/DOC		SOUTHWEST DIVISION
M62535 / 000288  GUID NONE 0002	10-06-1994 <b>09-01-1992</b> NONE 11.1	US EPA SAN FRANCISCO	SUPERFUND FACT SHEET: AN OVERVIEW PUB. 9230.0-05FSH	ADMIN RECORD	MOFF. GUID TECH/GUID/DOC		SOUTHWEST DIVISION
M62535 / 000294  GUID NONE 0002	10-06-1994 <b>09-01-1992</b> NONE 11.1	US EPA SAN FRANCISCO	SUPERFUND FACT SHEET: IDENTIFYING SITES PUB. 9234.0-05FSK	ADMIN RECORD	MOFF. GUID TECH/GUID/DOC		SOUTHWEST DIVISION
M62535 / 001021  N/A NONE 0020	07-18-1996 <b>10-19-1992</b> NONE 00.0	NAVFACENGCOM D. CHANDLER	PUBLIC LAW 102-426-OCTOBER 19, 1992 COMMUNITY ENVIRONMENTAL RESPONSE FACILLITATION ACT	ADMIN RECORD	CERFA COMM REL MOFF. GUID PUBLIC PART.		SOUTHWEST DIVISION
M62535 / 001022  BCP NONE 0040	07-18-1996 <b>10-19-1992</b> NONE 11.3	SOUTHWEST DIVISION D. CHANDLER BECHTEL NATIONAL	PUBLIC LAW 102-426-OCT. 19, 1992 COMMUNITY ENVIRONMENTAL RESPONSE FACILITATION ACT	ADMIN RECORD	CERFA		SOUTHWEST DIVISION



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M62535 / 001032  FACT NONE 0010	07-18-1996 <b>12-18-1992</b> NONE 11.2	DTSC LONG BEACH C. BEST MCAS TUSTIN A. CHASIN	REVIEWED FACT SHEET WITH COMMENTS	ADMIN RECORD	COMMENTS FACT SHEET HAZ WASTE MOFF. PUB PART PUBLIC PART.	00001 00002 00003 00004 00005 00006 00007 00008 00010 00011 00012 00013 00014 00015 OU 3	SOUTHWEST DIVISION
M62535 / 000262  GUID NONE 0009	10-06-1994 <b>02-05-1993</b> NONE 10.6	SOUTHWEST DIVISION R. ROYAL JACOBS ENGINEERING	GOVERNMENT COMMENTS ON DRAFT FACT SHEET	NON-ADMIN RECORD	COMM REL COMMENTS		SOUTHWEST DIVISION
M62535 / 001028  LTR NONE 0013	07-18-1996 <b>02-15-1993</b> NONE 11.2	USEPA J. WYLAND CITY OF TUSTIN C. SHINGLETON	USEPA: REVIEW OF NOTICE OF INTENT TO PREPARE A DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR THE PROJECT ENTITLED REUSE AND DISPOSAL OF MCAS TUSTIN	ADMIN RECORD	CEQA DISPOSAL EIS NEPA REUSE		SOUTHWEST DIVISION

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M62535 / 000263  FACT N68711-89-D9696 0006	10-06-1994 <b>02-17-1993</b> 00244 10.6	IT CORPORATION R. SMITH SOUTHWEST DIVISION R. GREEN	FINAL FACT SHEET: BASE HISTORY & DESCRIPTION; IRP'S OPERABLE UNITS; COMMUNITY RELATIONS PROGRAM; HOW IRP WORKS; WHERE YOU CAN GET MORE INFORMATION	ADMIN RECORD	COMM REL FACT SHEET MOFF. PUB PART OPERABLE UNIT PUBLIC PART.	00001 00002 00003 00004 00005 00006 00007 00008 00009 00010 00012 0013W OU 1 OU 2 OU 3	SOUTHWEST DIVISION
M62535 / 000115 CLE-I02-01F244-I2- 0002 MEMO N68711-89-D-9696 0005	10-06-1994 <b>02-22-1993</b> 00244 01.2	JACOBS ENGINEERING GROUP R. SMITH VARIOUS AGENCIES	MEETING NOTES ON DATA QUALITY OBJECTIVES FOR OPERABLE UNIT 1	ADMIN RECORD	DATA MOFFETT TRENC OPERABLE UNIT PUBLIC TECHNICAL DOC.	00001 00013 00066 0016A 0016B 0016C MAE 4 MWA 23 OU 1 OU 3 TOW 15 TOW 16	SOUTHWEST DIVISION
M62535 / 000162  MEMO NONE 0002	10-06-1994 <b>03-12-1993</b> NONE 02.5	SOUTHWEST DIVISION L. NUZUM JACOBS ENGINEERING	TECHNICAL DIRECTION FOR EMERGENCY FREE PRODUCT REMOVAL	NON-ADMIN RECORD	REMOVAL TEH		SOUTHWEST DIVISION

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M62535 / 000044  WKPL N68711-89-D9296 0500	05-10-1994 <b>06-28-1993</b> 00244 03.3	SWDIV/JACOBS	REMEDIAL INVESTIGATION WORK PLAN FOR OPERABLE UNIT 1	ADMIN RECORD	OPERABLE UNIT REMEDIAL INVES WORKPLANS	OU 1	SOUTHWEST DIVISION
M62535 / 000182  WKPL N68711-89-D9296 0270	10-06-1994 <b>08-06-1993</b> 00244 03.3	IT CORPORATION R. SMITH SOUTHWEST DIVISION R. GREEN	DRAFT - REMEDIAL INVESTIGATION WORK PLAN FOR OPERABLE UNIT 1	ADMIN RECORD	MOFFETT TRENC OPERABLE UNIT PUBLIC REMEDIAL INVES TECHNICAL DOC.	00001 00003 00012 00013 OU 1 OU 1A OU 1B OU 1C OU 3	SOUTHWEST DIVISION
M62535 / 001054  LTR NONE 0002	07-24-1996 <b>08-20-1993</b> NONE 01.0	MCAS EL TORO L.G. SERAFINI DTSC LONG BEACH C. BEST	TECHNICAL REVIEW COMMITTEE REVIEW OF REMEDIAL INVESTIGATION WORK PLAN FOR OPERABLE UNIT 1, DRAFT, DATED AUGUST 6, 1993	ADMIN RECORD	REMEDIAL INVES TRC	OU 1	SOUTHWEST DIVISION
M62535 / 000220 CLE-I02-01F244-B4- 0001 PLAN N68711-89-D-9296 0195	12-15-1999 <b>08-27-1993</b> 00244 03.5	JACOBS ENGINEERING GROUP R. SMITH SOUTHWEST DIVISION	DRAFT - HEALTH AND SAFETY PLAN FOR OPERABLE UNIT 1 REMEDIAL INVESTIGATION	ADMIN RECORD	AOC GW H&SP SOIL	OU 1	SOUTHWEST DIVISION
M62535 / 001279  MEMO NONE 0001	03-17-1997 <b>10-19-1993</b> NONE 10.5		LIST OF TUSTIN TEAM BUILDING WORKSHOP ATTENDEES	ADMIN RECORD			SOUTHWEST DIVISION

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M62535 / 001033  LTR NONE 0001	07-18-1996 <b>10-29-1993</b> NONE 10.0	CITY OF TUSTIN W. HUSTON MCAS EL TORO MAJ. A. MURPHY	APPOINTMENT TO RESTORATION ADVISORY BOARD	ADMIN RECORD	MOFF. PUB PART PUBLIC PART. RAB		SOUTHWEST DIVISION
M62535 / 001589  COMM NONE 0011	02-26-1998 <b>11-10-1993</b> 00049 10.1	DTSC LONG BEACH M. IBRAHIM SOUTHWEST DIVISION D. CHANDLER	DTSC AND CRWQCB REVIEW OF THE DRAFT REMEDIAL INVESTIGATION AND HEALTH AND SAFETY PLAN FOR OPERABLE UNIT 1	ADMIN RECORD	COMMENTS GROUNDWATER IRP MOFFETT TRENC REMEDIAL INVES	00003 00012 00016 0013E 0013W 0016C OU 1 OU 3 PARCEL 1	SOUTHWEST DIVISION
M62535 / 001025  REUS NONE 0002	07-18-1996 <b>11-23-1993</b> NONE 10.3	TUSTIN M. WYNN PUBLIC	PUBLIC NOTICE: MCAS TUSTIN RE-USE PLAN COMMUNITY WORKSHOP RE-USE ALTERNATIVES	ADMIN RECORD	COMM REL PUBNOT REUSE		SOUTHWEST DIVISION
M62535 / 000549  MM NONE 0075	06-29-1995 <b>11-30-1993</b> NONE 10.5	CITY OF TUSTIN C. SHINGLETON	BASE CLOSURE TASK FORCE MINUTES AND PLANS COMMUNITY WORKSHOP	ADMIN RECORD	MOFF. PUB PART PUBLIC PART.		SOUTHWEST DIVISION
M62535 / 001056  NEWS NONE 0001	07-24-1996 <b>01-20-1994</b> NONE 10.3	O.C. REGISTER  PUBLIC	PUBLIC NOTICE - FORMATION OF RESTORATION ADVISORY BOARD MEMBERSHIP SOLICITATION	ADMIN RECORD	MEDIA MOFF. PUB PART PUBLIC PART. RAB		SOUTHWEST DIVISION
M62535 / 000476  MISC NONE 0001	05-30-1995 <b>01-21-1994</b> NONE 10.3	TUSTIN NEWS MARY E. WYNN PUBLIC	PUBLIC NOTICE - CITY OF TUSTIN BASE CLOSURE TASK FORCE MEETING MARCH 3, 1994	ADMIN RECORD	COMM REL MEDIA MOFF. PUB PART PUBLIC PART.		SOUTHWEST DIVISION

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M62535 / 000949  MISC NONE 0001	06-28-1996 <b>02-09-1994</b> NONE 10.3	MCAS TUSTIN  PUBLIC	PUBLIC NOTICE ANNOUNCING FEBRUARY 24, 1994 PUBLIC MEETING SCHEDULED FOR FORMATION OF RESTORATION ADVISORY BOARD AND SOLICITATION OF RAB MEMBERS	ADMIN RECORD	MEDIA MOFF. PUB/ PART PUBLIC NOTICE PUBLIC PART. RAB	00001 00002 00003 00004 00005 00006 00007 00008 00009 00010 00011 00012 00013 00014 00015 00016 OU 1 OU 2 OU 3	SOUTHWEST DIVISION
M62535 / 001058  NEWS NONE 0001	07-24-1996 <b>02-18-1994</b> NONE 10.3	TUSTIN WEEKLY  PUBLIC	PUBLIC NOTICE - FORMATION OF RESTORATION ADVISORY BOARD SOLICITATION	ADMIN RECORD	MEDIA PUBLIC PART. RAB		SOUTHWEST DIVISION
M62535 / 001057  NEWS NONE 0001	07-24-1996 <b>02-25-1994</b> NONE 10.3	AC/S ENVIR & SAFETY A. CHASIN PUBLIC	PUBLIC NOTICE - FORMATION OF RESTORATION ADVISORY BOARD, MEMBERSHIP SOLICITATION	ADMIN RECORD	MOFF. PUB PART PUBLIC PART. RAB		SOUTHWEST DIVISION
M62535 / 001052  DOD NONE 0030	07-24-1996 <b>03-01-1994</b> NONE 11.6	U.S. NAVY	GUIDANCE - ESTABLISHMENT OF RESTORATION ADVISORY BOARD(RAB)	ADMIN RECORD	MOFF. GUID RAB TECH/GUID/DOC.		SOUTHWEST DIVISION

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M62535 / 001285  MEMO NONE 0003	03-26-1997 <b>03-10-1994</b> NONE 10.5	SOUTHWEST DIVISION L. HOLLOWAY VARIOUS AGENCIES	MEMO-REMEDIAL PROJECT MANAGERS MEETING NOTICE AND AGENDA	ADMIN RECORD	MEMO		SOUTHWEST DIVISION
M62535 / 001282  NOTE NONE 0001	03-17-1997 <b>04-01-1994</b> NONE 10.5	SOUTHWEST DIVISION L. HOLLOWAY VARIOUS	CANCELED MEETING NOTICE FOR APRIL 18, 1994 MEETING RE-SCHEDULED TO APRIL 20-21, 1994	ADMIN RECORD	MEMO		SOUTHWEST DIVISION
M62535 / 001284  LTR NONE 0008	03-26-1997 <b>04-07-1994</b> NONE 10.5	SOUTHWEST DIVISION L. HOLLOWAY VARIOUS AGENCIES	MEMO-REGARDING CALIFORNIA BASE CLOSURE ENVIRONMENTAL COMMITTEE MEETING NOTICE	ADMIN RECORD	BRAC CLOSURE MEMO		SOUTHWEST DIVISION
M62535 / 001283  LTR NONE 0004	03-26-1997 <b>04-11-1994</b> NONE 10.5	SOUTHWEST DIVISION L. HOLLOWAY DISTRIBUTION	MEMORANDUM - DATA QUALITY OBJECTIVE MEETING NOTICE	ADMIN RECORD	MEMO		SOUTHWEST DIVISION
M62535 / 000940  LTR NONE 0010	06-28-1996 <b>04-25-1994</b> NONE 10.0	MCAS TUSTIN W. HAMMERLE RAB L. HOLLOWAY	LETTER ACCEPTING L. HOLLOWAY AS A MEMBER OF THE RESTORATION ADVISORY BOARD (RAB), INCLUDES COMPLETE LIST OF RAB MEMBERS	ADMIN RECORD	PUBLIC PART. RAB		SOUTHWEST DIVISION
M62535 / 000941  LTR NONE 0010	06-28-1996 <b>04-25-1994</b> NONE 10.0	MCAS TUSTIN W. HAMMERLE RAB J. TUCKER	LETTER ACCEPTING MEMBER OF PUBLIC AS THE RESTORATION ADVISORY BOARD (RAB) COMMUNITY CO-CHAIR	ADMIN RECORD	PUBLIC PART. RAB		SOUTHWEST DIVISION

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M62535 / 000809  MM N68711-92-D4670 0030	05-17-1996 <b>05-05-1994</b> 00063 01.1	SOUTHWEST DIVISION L. HOLLOWAY RAB MEMBERS PUBLIC	MINUTES & OTHER MATERIAL FROM MAY 5, 1994 RAB MEETING (ALSO AVAILABLE IN RAB ARCHIVES BINDER DOCUMENT # 000682)	ADMIN RECORD	COMM REL MTG MINS PUBLIC PART. RAB	00013	SOUTHWEST DIVISION
M62535 / 000462  LTR NONE 0001	05-23-1995 <b>05-20-1994</b> NONE 3.6	SUNRISE BARRY RODGERS SWDIV L. HOLLOWAY	LETTER RE: ACCESS TO BFM ENERGY PRODUCTS CORPORATION	NON-ADMIN RECORD			SOUTHWEST DIVISION
M62535 / 001558  NEWS NONE 0001	02-17-1998 <b>05-20-1994</b> NONE 10.3	O.C. REGISTER  PUBLIC	NEWSPAPER ARTICLE "CIVILIAN JOB CUTS LOOM AT MARINE STATIONS" (NO LAYOFFS ARE EXPECTED, BUT FUNDING PROBLEMS WILL DELAY CLOSING OF TUSTIN AND EL TORO)	ADMIN RECORD	CLOSURE MEDIA		SOUTHWEST DIVISION
M62535 / 001559  NEWS NONE 0002	02-17-1998 <b>06-17-1994</b> NONE 10.3	LA TIMES  PUBLIC	NEWSPAPER ARTICLE "STANDING TALL- TUSTIN BLIMP HANGARS HONORED AS FEATS OF ENGINEERING"	ADMIN RECORD	MEDIA		SOUTHWEST DIVISION
M62535 / 000264  FACT NONE 0004	10-06-1994 <b>06-21-1994</b> NONE 10.6	IT CORPORATION R. SMITH SOUTHWEST DIVISION R. GREEN	FINAL (UPDATE) FACT SHEET #2 "NEW ENVIRONMENTAL TO HOLD WORKSHOP"	ADMIN RECORD INFO REPOSITORY	COMM REL FACT SHEET PUBLIC PART. RAB		SOUTHWEST DIVISION
M62535 / 001037  LTR NONE 0008	07-18-1996 <b>06-27-1994</b> NONE 01.0	DON R.W. WATKINS MCAS TUSTIN GENERAL STAFF	NOTICE OF INTENT TO PREPARE AN ENVIRONMENTAL IMPACT STATEMENT/ENVIRONMENTAL IMPACT REPORT FOR THE DISPOSAL AND REUSE OF MCAS TUSTIN	NON-ADMIN RECORD	DISPOSAL EIS REUSE		SOUTHWEST DIVISION

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M62535 / 000944  MISC NONE 0010	06-28-1996 <b>06-29-1994</b> NONE 10.4	BECHTEL NATIONAL  RAB	MEETING MINUTES FROM JUNE 24 - 25, 1994 RESTORATION ADVISORY BOARD (RAB) WORKSHOP, INCLUDES BRIEF SITE UPDATES AND LIST OF MEETING ATTENDEES	ADMIN RECORD	MOFF. PUB PART MTG MINS PUBLIC PART. RAB	00001 00002 00003 00004 00005 00007 00008 00009 00012 00013 00016 OU 3	SOUTHWEST DIVISION
M62535 / 001560  NEWS NONE 0001	02-17-1998 <b>06-29-1994</b> NONE 10.6	O.C. REGISTER  PUBLIC	NEWSPAPER ARTICLE "TUSTIN - SIXTY- NINE PEOPLE HAVE BEEN SELECTED TO BE ON THE RESTORATION ADVISORY BOARD FOR TUSTIN MARINE CORPS AIR STATION"	ADMIN RECORD	MEDIA RAB		SOUTHWEST DIVISION
M62535 / 000856  MISC NONE 0200	06-05-1996 <b>06-30-1994</b> NONE 01.1	U.S. NAVY	RESTORATION ADVISORY BOARD WORKSHOP GUIDEBOOK: STRATEGY FOR IMPLEMENTING JOINT DOD AND USEPA GUIDELINES ON RABS - DATE ASSUMED	ADMIN RECORD	MOFF. GUID RAB TECH/GUID/DOC. USEPA		SOUTHWEST DIVISION
M62535 / 000942  LTR NONE 0002	06-28-1996 <b>07-06-1994</b> NONE 10.0	MCAS TUSTIN W. HAMMERLE DTSC C. BEST	LETTER TRANSMITTING RESTORATION ADVISORY BOARD WORKSHOP MATERIALS TO DTSC, MATERIALS NOT INCLUDED	ADMIN RECORD	MOFF. PUB PART PUBLIC PART. RAB	00001 OU 3	SOUTHWEST DIVISION



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M62535 / 001062  MM NONE 0010	07-24-1996 <b>07-06-1994</b> NONE 10.5	ADVANCED SCIENCES W. HAMMERLE DISTR	JUNE 24-25, 1996 RAB WORKSHOP MEETING MINUTES AND AGENDA	ADMIN RECORD	MOFF. PUB PART MTG MINS PUBLIC PART. RAB	00001 00002 00003 00004 00005 00007 00008 00009 00012 00013 00016 OU 3	SOUTHWEST DIVISION
M62535 / 000808  MM N68711-92-D4670 0020	05-17-1996 <b>07-14-1994</b> 00063 01.1	SOUTHWEST DIVISION L. HOLLOWAY RAB MEMBERS PUBLIC	MINUTES AND OTHER MATERIAL FROM JULY 14, 1994 RAB MEETING (ALSO AVAILABLE IN RAB ARCHIVES BINDER - DOCUMENT # 000682)	ADMIN RECORD	COMM REL MOFF. PUB PART MTG MINS PUBLIC PART. RAB	00001 00002 00003 00004 00005 00006 00007 00008 00009 00010 00011 00012 00013 00014 00015 00016 OU 3	SOUTHWEST DIVISION
M62535 / 001561  NEWS NONE 0001	02-17-1998 <b>07-23-1994</b> NONE 10.3	O.C. REGISTER  PUBLIC	NEWSPAPER ARTICLE "MARINES TO STAY IN TUSTIN TILL '98" (FUNDING TO EXPEDITE THE MOVE WENT TO HELP VICTIMS OF THE NORTHRIDGE QUAKE)	ADMIN RECORD	MEDIA		SOUTHWEST DIVISION

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M62535 / 000458  GUID PUB9355.08FS 0015	05-23-1995 <b>07-28-1994</b> NONE 11.1	USEPA	SUPERFUND REMEDY IMPLEMENTATION GUIDE: THERMAL DESORPTION TREATMENT QUICK REFERENCE FACT SHEET	ADMIN RECORD	GUIDE TDT		SOUTHWEST DIVISION
M62535 / 000946  LTR NONE 0011	06-28-1996 <b>08-01-1994</b> NONE 10.0	MCAS TUSTIN L. HOLLOWAY MCAS TUSTIN W. HAMMERLE	MEETING MINUTES FROM JULY 14, 1995 RESTORATION ADVISORY BOARD (RAB) MEETING AND PROJECT DELIVERABLE LIST	ADMIN RECORD	MTG MINS PUBLIC PART. RAB		SOUTHWEST DIVISION
M62535 / 000604  SAPL N68711-89-D9296 0075	08-22-1995 <b>09-01-1994</b> 00210 01.1	JACOBS N. ACEDERA SWDIV	***** MARINE CORPS AIR STATION YUMA, ARIZONA, OPERABLE UNIT 2 FIELD SAMPLING PLAN DRAFT FINAL	NON-ADMIN RECORD	CERCLA DQOP FSP RCRA UST	OU 2	SOUTHWEST DIVISION
M62535 / 001562  NEWS NONE 0001	02-19-1998 <b>09-10-1994</b> NONE 10.3	LA TIMES  PUBLIC	NEWSPAPER NOTICE "THE TUSTIN MARINE CORPS AIR STATION IS HOSTING AN OPEN HOUSE FROM 8 A.M. TO 4 P.M. SUNDAY"	ADMIN RECORD	MEDIA		SOUTHWEST DIVISION
M62535 / 001361  GUID NONE 0025	05-07-1997 <b>09-27-1994</b> NONE 11.6	DOD S. GOODMAN RAB MEMBERS	RESTORATION ADVISORY BOARD (RAB) IMPLEMENTATION GUIDELINES SEPTEMBER 1994	ADMIN RECORD	GUIDE PUBLIC PART. RAB		SOUTHWEST DIVISION
M62535 / 000614  COMM NONE 0010	08-22-1995 <b>09-29-1994</b> NONE 01.1	DTSC A. ARELLANO, JR USMC W. LEE	**** DTSC COMMENTS ON DRAFT OPERABLE UNIT 1 (OU#1) BASELINE HUMAN HEALTH RISK ASSESSMENT REPORT FOR MCAS EL TORO	ADMIN RECORD	COMMENTS EL TORO HA OU RA USEPA		SOUTHWEST DIVISION

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M62535 / 000810  MM N69811-92-D4670 0015	05-17-1996 <b>10-06-1994</b> 00063 01.1	SOUTHWEST DIVISION D. CHANDLER RAB MEMBERS PUBLIC	MINUTES AND OTHER MATERIAL FROM OCTOBER 6, 1994 RAB MEETING (ALSO AVAILABLE IN RAB ARCHIVES BINDER DOCUMENT #000682)	ADMIN RECORD	COMM REL MOFF. PUB PART MTG MINS PUBLIC PART. RAB	00001 00013 00016 OU 3	SOUTHWEST DIVISION
M62535 / 001061  LTR NONE 0003	07-24-1996 <b>10-21-1994</b> NONE 10.1	DTSC LONG BEACH J. WHITEN MCAS TUSTIN D. CHANDLER	LETTER CONCERNING SEVERAL PUBLIC PARTICIPATION ISSUES ASSOCIATED WITH REMEDIAL ACTIVITIES	ADMIN RECORD	IRP PUBLIC PART.		SOUTHWEST DIVISION
M62535 / 000811  MM N68711-92-D4670 0025	05-17-1996 <b>11-03-1994</b> 00063 01.1	SOUTHWEST DIVISION D. CHANDLER RAB MEMBERS PUBLIC	MINUTES & OTHER MATERIAL FROM NOVEMBER 3, 1994 RAB MEETING (ALSO AVAILABLE IN RAB ARCHIVES BINDER DOCUMENT #000682)	ADMIN RECORD	COMM REL MOFF. PUB PART MTG MINS PUBLIC PART. RAB	00001 00013 00016 OU 3	SOUTHWEST DIVISION
M62535 / 001060  NEWS NONE 0001	07-24-1996 <b>11-03-1994</b> NONE 10.3	REGISTER  PUBLIC	PUBLIC NOTICE - RESTORATION ADVISORY BOARD PUBLIC MEETING	ADMIN RECORD	MEDIA MOFF. PUB PART MOFFETT TRENC PUBLIC PART.	00001 00016 OU 3	SOUTHWEST DIVISION
M62535 / 001515  MISC NONE 0100	12-29-1997 <b>01-01-1995</b> NONE 10.0	EPA WASHINGTON, DC	GROUNDWATER SAMPLING - A WORKSHOP SUMMARY, DALLAS, TEXAS NOVEMBER 30-DECEMBER 2, 1993	NON-ADMIN RECORD	GROUNDWATER SAMPLING		SOUTHWEST DIVISION
M62535 / 000812  MM N68711-92-D4670 0040	05-17-1996 <b>01-24-1995</b> 00063 01.1	SOUTHWEST DIVISION D. CHANDLER RAB MEMBERS PUBLIC	MINUTES & OTHER MATERIAL FROM JANUARY 24, 1995 RAB MEETING (ALSO AVAILABLE IN RAB ARCHIVES BINDER DOCUMENT #000682)	ADMIN RECORD	COMM REL MTG MINS PUBLIC PART. RAB	00013 00016 0016A	SOUTHWEST DIVISION

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M62535 / 000690  FACT N68711-92-D4670 0002	01-08-1996 <b>02-01-1995</b> 00063 01.1	USMC A. CHASIN PUBLIC	TUSTIN FACT SHEET #3: FEBRUARY 1995: "SOIL TREATMENT PROCESS SELECTED FOR CLEANUP OF FORMER FUEL FARM AREA" (PG. 1 HEADLINE)	ADMIN RECORD	COMM REL FACT SHEET PUBLIC PART.	00001 0016A 0016C OU 3	SOUTHWEST DIVISION
M62535 / 001053  LTR NONE 0001	07-24-1996 <b>02-14-1995</b> NONE 10.0	RAB MEMBER L. HILLYER MCAS EL TORO A. CHASIN	RESIGNATION FROM MCAS TUSTIN RESTORATION ADVISORY BOARD	ADMIN RECORD	RAB		SOUTHWEST DIVISION
M62535 / 000813  MM N68711-92-D4670 0050	05-17-1996 <b>02-22-1995</b> 00063 01.1	SOUTHWEST DIVISION D. CHANDLER RAB MEMBERS PUBLIC	MINUTES AND OTHER MATERIAL FROM FEBRUARY 22, 1995 RAB MEETING (ALSO AVAILABLE IN RAB ARCHIVES BINDER DOCUMENT #000682)	ADMIN RECORD	COMM REL MTG MINS PUBLIC PART. RAB	00011 00013 00016	SOUTHWEST DIVISION
M62535 / 000579 CTO-0049/0072 WKPL N68711-92-D-4670 0500	07-18-1995 <b>03-01-1995</b> 00049 01.1	BECHTEL NATIONAL W. MYERS SOUTHWEST DIVISION	DRAFT REMEDIAL INVESTIGATION WORK PLAN FOR OPERABLE UNIT 1 AND OPERABLE UNIT 2 MARINE CORPS AIR STATION TUSTIN (INCLUDES DRAFT BACKGROUND SOILS & GROUNDWATER WORK PLAN), VOLUME 1, VOLUME 2 = DOCUMENT #000580	ADMIN RECORD	MOFFETT TRENC REMEDIAL INVES TECHNICAL DOC. WORKPLANS	00003 00005 00007 00012 00013 00016 OU 1 OU 2 OU 3	SOUTHWEST DIVISION
M62535 / 000580 CTO-0049/0072 WKPL N68711-92-D-4670 0500	07-18-1995 <b>03-01-1995</b> 00049 01.1	BECHTEL NATIONAL W. MYERS SOUTHWEST DIVISION	DRAFT REMEDIAL INVESTIGATION WORK PLAN FOR OPERABLE UNITS 1 AND 2 (INCLUDES DRAFT BACKGROUND SOILS & GROUNDWATER WORK PLAN), VOLUME 2, VOLUME 1 = DOCUMENT #000579	ADMIN RECORD	MOFFETT TRENC REMEDIAL INVES TECHNICAL DOC. WORKPLANS	00003 00005 00007 00012 00013 00016 OU 1 OU 2 OU 3	SOUTHWEST DIVISION

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M62535 / 001068  LTR NONE 0001	07-24-1996 <b>03-10-1995</b> NONE 00.0	DOD D. CHANDLER PUBLIC P. CIESLA	RAB LETTER REGARDING MEMBERSHIP INTENTIONS	ADMIN RECORD	PUBLIC PART. RAB		SOUTHWEST DIVISION
M62535 / 001364  MISC NONE 0001	05-07-1997 <b>04-11-1995</b> NONE 10.3	O.C. REGISTER  PUBLIC	PUBLIC NOTICE REGARDING A RESTORATION ADVISORY BOARD MEETING ON APRIL 13 1995	ADMIN RECORD	MEDIA PUBLIC NOTICE PUBLIC PART. RAB		SOUTHWEST DIVISION
M62535 / 000814  MM N68711-92-D4670 0040	05-17-1996 <b>04-13-1995</b> 00063 01.1	SOUTHWEST DIVISION D. CHANDLER RAB MEMBERS PUBLIC	MINUTES & OTHER MATERIAL FROM APRIL 13, 1995 RAB MEETING (ALSO AVAILABLE IN RAB ARCHIVES BINDER DOCUMENT #000682)	ADMIN RECORD	COMM REL MOFF. PUB PART MTG MINS PUBLIC PART. RAB	00001 00013 OU 3	SOUTHWEST DIVISION
M62535 / 001365  MISC NONE 0001	05-07-1997 <b>05-21-1995</b> NONE 10.3	O.C. REGISTER  PUBLIC	PUBLIC NOTICE REGARDING A RESTORATION ADVISORY BOARD MEETING ON MAY 31 1995	ADMIN RECORD	MEDIA PUBLIC NOTICE PUBLIC PART. RAB		SOUTHWEST DIVISION
M62535 / 000619  COMM NONE 0006	08-22-1995 <b>05-25-1995</b> 00049 01.1	US EPA SAN FRANCISCO D. HODGES SOUTHWEST DIVISION J. PAYNE	USEPA COMMENTS ON DRAFT FIELD SAMPLING PLAN, DRAFT REMEDIAL INVESTIGATION WORK PLAN FOR OPERABLE UNIT 1 AND OPERABLE UNIT 2	ADMIN RECORD	COMMENTS FSP MOFFETT TRENC OPERABLE UNIT REMEDIAL INVES SAMPLING TECHNICAL DOC. USEPA WORKPLANS	00013 OU 1 OU 2 OU 3	SOUTHWEST DIVISION
M62535 / 001055  LTR NONE 0080	07-24-1996 <b>05-25-1995</b> NONE 10.0	PUBLIC  RAB MEMBERS	MEMBERSHIP APPLICATION FOR RESTORATION ADVISORY BOARD, SEVERAL APPLICATIONS	ADMIN RECORD	PUBLIC PART. RAB		SOUTHWEST DIVISION

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M62535 / 001363  MISC NONE 0001	05-07-1997 <b>05-28-1995</b> NONE 10.3	O.C. REGISTER  PUBLIC	PUBLIC NOTICE REGARDING RESTORATION ADVISORY BOARD (RAB) MEETING, MAY 31, 1995	ADMIN RECORD	PUBLIC PUBLIC NOTICE RAB		SOUTHWEST DIVISION
M62535 / 000815  MM N68711-92-D4670 0015	05-17-1996 <b>05-31-1995</b> 00063 01.1	SOUTHWEST DIVISION D. CHANDLER RAB MEMBERS PUBLIC	MINUTES & OTHER MATERIAL FROM MAY 31, 1995 RAB MEETING (ALSO AVAILABLE IN RAB ARCHIVES BINDER DOCUMENT # 000682)	ADMIN RECORD	COMM REL MOFF. PUB PART MTG MINS PUBLIC PART. RAB	00001 00003 00005 00007 00012 00013 00016 OU 1 OU 2 OU 3	SOUTHWEST DIVISION
M62535 / 001541 NONE MM NONE 0022	04-10-2000 <b>06-22-1995</b> NONE	NAVFAC - SOUTHWEST DIVISION  NAVFAC - SOUTHWEST DIVISION	NOTICE OF RESTORATION ADVISORY BOARD (RAB) MEETING OF JUNE 22, 1995; INCLUDES: DRAFT AND FINAL AGENDA OF MEETING, VARIOUS HANDOUTS, & MEETING MINUTES OF RAB MEETING OF 6/22/95	ADMIN RECORD	BCP BRAC RAB	AREA 22	SOUTHWEST DIVISION
M62535 / 000817  MM N68711-92-D4670 0040	05-17-1996 <b>07-20-1995</b> 00063 01.1	SOUTHWEST DIVISION D. CHANDLER RAB MEMBERS PUBLIC	MINUTES & OTHER MATERIAL FROM JULY 20, 1995 RAB MEETING (ALSO AVAILABLE IN RAB ARCHIVES BINDER DOCUMENT # 000682)	ADMIN RECORD	COMM REL MTG MINS PUBLIC PART. RAB	00013 AREA 22	SOUTHWEST DIVISION
M62535 / 000818  MISC N68711-92-D4670 0001	05-17-1996 <b>07-28-1995</b> 00063 01.1	SOUTHWEST DIVISION D. CHANDLER RAB MEMBERS	ANNOUNCEMENT/INVITATION TO THERMAL DESORPTION UNIT TOUR (ALSO AVAILABLE IN RAB ARCHIVES BINDER DOCUMENT # 000682)	ADMIN RECORD	COMM REL PUBLIC PART. RAB TDU	00016	SOUTHWEST DIVISION

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M62535 / 000819  MISC N68711-92-D4670 0001	05-17-1996 <b>08-01-1995</b> 00063 01.1	SOUTHWEST DIVISION VARIOUS RAB MEMBERS PUBLIC	ANNOUNCEMENT OF NO 8-95 GENERAL MTG; ANNOUNCEMENT OF R/FS SUBCOMMITTEE MEETING AUGUST 22, 1995 (ALSO AVAILABLE IN RAB ARCHIVES BINDER DOC# 000682)	ADMIN RECORD	COMM REL FEASIBILITY STU. MOFF. PUB PART PUBLIC PART. RAB REMEDIAL INVES	00001 00003 00005 00007 00012 00013 00016 OU 1 OU 2 OU 3	SOUTHWEST DIVISION
M62535 / 001360  WKPL NONE 0001	05-07-1997 <b>08-22-1995</b> NONE 10.3	MCAS TUSTIN  RAB MEMBERS	NOTICE TO RAB MEMBERS THAT THERE WILL NOT BE A RAB MEETING IN AUGUST 1995 HOWEVER AN R/FS SUBCOMMITTEE MEETING WILL BE HELD TO HIGHLIGHT CURRENT ACTIVITIES	ADMIN RECORD	FEASIBILITY STU. PUBLIC PART. RAB REMEDIAL INVES		SOUTHWEST DIVISION
M62535 / 001369  LTR NONE 0006	05-07-1997 <b>09-11-1995</b> NONE 10.0	MCAS TUSTIN D. CHANDLER COMMANDING OFFICER M. POTACKA	RESPONSE TO RESTORATION ADVISORY BOARD (RAB) DATA CALL	ADMIN RECORD	DATA RAB		SOUTHWEST DIVISION
M62535 / 000417  LTR NONE 0001	06-25-1996 <b>09-18-1995</b> NONE 01.1	IUSD C. LOSKOT TUSTIN C. SHINGLETON	IRVINE UNIFIED SCHOOL DISTRICT REQUEST PUBLIC BENEFIT CONVEYANCE	ADMIN RECORD	PUBLIC PART.		SOUTHWEST DIVISION
M62535 / 000700  MEMO N68711-92-D4670 0005	01-26-1996 <b>09-20-1995</b> 00063 10.3	SOUTHWEST DIVISION C. WIEMERT PUBLIC OC REGISTER	MCAS TUSTIN AND MCAS EL TORO RESTORATION ADVISORY BOARD MEMBERSHIP RECRUITMENT (PUBLIC NOTICE)	ADMIN RECORD	PUBLIC PART. RAB		SOUTHWEST DIVISION

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M62535 / 001046 NONE MM NONE 0041	03-27-2000 <b>09-22-1995</b> NONE	MCAS TUSTIN  NAVFAC - SOUTHWEST DIVISION	PUBLIC NOTICE OF RESTORATION ADVISORY BOARD MEETING OF THURSDAY, SEPTEMBER 21, 1995 INCLUDES MEETING MINUTES, VARIOUS HANDOUTS, SIGN-IN SHEETS, AND MAILING LIST - PARTS OF WHICH SHOULD BE CONSIDERED CONFIDENTIAL	ADMIN RECORD CONFIDENTIAL	EBS FOST RAB RCRA	1 12 13E 13W 16 3 5N 5S 7N 7S	SOUTHWEST DIVISION
M62535 / 001563  NEWS NONE 0004	02-19-1998 <b>10-16-1995</b> NONE 10.3	O.C. REGISTER  PUBLIC	NEWSPAPER ARTICLE "HEATING FOR A CLEANUP - LOW TECH IS IN FASHION AT THE TUSTIN MARINE BASE, WHERE SOIL- HEATING TECHNOLOGY IS SAVING MONEY ON CLEANUP BILLS"	ADMIN RECORD	CLEANUP FUEL MEDIA SOIL		SOUTHWEST DIVISION
M62535 / 001564  NEWS NONE 0002	02-19-1998 <b>10-21-1995</b> NONE 10.3	IRVINE WORLD NEWS  PUBLIC	NEWSPAPER ARTICLE "MARINES CLEANING UP 40 YEARS OF CONTAMINATION - FUTURE HOME SITE SITS ON 75,000 TONS OF TOXIC SOIL"	ADMIN RECORD	FUEL MEDIA REUSE SOIL		SOUTHWEST DIVISION
M62535 / 000699  MEMO N68711-92-D4670 0015	01-26-1996 <b>10-31-1995</b> 00063 01.1	BECHTEL NATIONAL S. ALLIONE BECHTEL NATIONAL CTOLS	MEMO TO TUSTIN CTOLS: DISTRIBUTION OF DRAFT DOCUMENTS TO RESTORATION ADVISORY BOARD (RAB) SUBCOMMITTEES	NON-ADMIN RECORD	COMM REL RAB		SOUTHWEST DIVISION
M62535 / 000933 CTO-0063/0167 MISC N68711-92-D-4670 0008	06-28-1996 <b>11-01-1995</b> 00063 10.0	BECHTEL NATIONAL A. SCHWARTZ SWDIV P. KENNEDY	LETTER TRANSMITTING SUMMARY OF CHANGES AND EDITS TO RESTORATION ADVISORY BOARD (RAB) SURVEY	ADMIN RECORD	COMM REL PUBLIC PART. RAB		SOUTHWEST DIVISION



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M62535 / 001565  NEWS NONE 0002	02-19-1998 <b>11-02-1995</b> NONE 10.3	PUBLIC	NEWSPAPER ARTICLE "TUSTIN CLEANS UP SOIL WITH NEW SYSTEM"	ADMIN RECORD	CLEANUP MEDIA SOIL		SOUTHWEST DIVISION
M62535 / 001566  NEWS NONE 0001	02-19-1998 <b>11-02-1995</b> NONE 10.3	PUBLIC	NEWSPAPER ARTICLE "CLEAN DIRT FOR TUSTIN"	ADMIN RECORD	CLEANUP MEDIA SOIL		SOUTHWEST DIVISION
M62535 / 000936  LTR NONE 0001	06-28-1996 <b>11-08-1995</b> NONE 10.1	RAB G. HURLEY SWDIV J. JOYCE	*** LTR. FROM RAB MEMBER REQUESTING SWDIV RESPONSE TO CITY OF IRVINE LETTER WRITTEN REGARDING EE/CA FOR SITES 7, 11, 13, 14, 19, AND 20 (EL TORO)	NON-ADMIN RECORD	EE/CA EL TORO RAB	00007 00011 00013 00014 00019 00020	SOUTHWEST DIVISION
M62535 / 001205  RESP NONE 0001	03-05-1997 <b>11-08-1995</b> NONE 10.1	RAB MEMBER G. HURLEY SOUTHWEST DIVISION J. JOYCE	RAB'S RESPONSE TO CITY OF IRVINE'S LETTER OF SEPTEMBER 12, 1995 REGARDING REVISING DRAFT EE/CA	ADMIN RECORD	EL TORO RAB	00007 00011 00013 00014 00019 00020	SOUTHWEST DIVISION
M62535 / 000937  MISC N6871192D467000 0015	06-28-1996 <b>11-16-1995</b> 0063B 10.0	BECHTEL NATIONAL D. COWSER SOUTHWEST DIVISION P. KENNEDY	***DRAFT AGENDA & PUBLIC NOTICE FOR NOVEMBER 30, 1995 RAB MEETING - DRAFT MEETING MINUTES FROM OCTOBER 10, 1995 AND NOVEMBER MAILING LIST (EL TORO)	NON-ADMIN RECORD	EL TORO MTG MINS PUBNOT RAB		SOUTHWEST DIVISION
M62535 / 001198  COMM NONE 0005	03-04-1997 <b>11-21-1995</b> NONE 3.6	DTSC LONG BEACH M. MINGAY VARIOUS AGENCIES	COMMENTS ON FACT SHEET #5 REMEDIAL INVESTIGATION/BCT AND GENERAL STATUS	ADMIN RECORD	BCT COMMENTS FACT SHEET PUBLIC PART. REMEDIAL INVES		SOUTHWEST DIVISION

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M62536 / 000689  FACT N68711-92-D4670 0004	01-08-1996 <b>12-01-1995</b> 00063 01.1	USMC C. WIEMERT PUBLIC	FACT SHEET #4 - MCAS TUSTIN: "IT'S OFFICIAL: EXCAVATION AND TREATMENT OF CONTAMINATED SOIL IS UNDER WAY"	ADMIN RECORD	COMM REL FACT SHEET PUBLIC PART. REMOVAL	AREA 169 AREA 170 AREA 22 BLDG. 248	SOUTHWEST DIVISION
M62535 / 000969  MISC N6871192D467000 0005	06-28-1996 <b>12-07-1995</b> 00049 01.1	BECHTEL NATIONAL H. MASRI SOUTHWEST DIVISION P. KENNEDY	LETTER TRANSMITTING DRAFT REPLACEMENT COPIES OF THE SUMMARY DATA PACKAGES FOR SITES 13W, AND 16 UNDER OPERABLE UNIT 2	ADMIN RECORD	TECHNICAL DOC.	00016 OU 2 PARCEL 13W	SOUTHWEST DIVISION
M62535 / 000723  RPT NONE 0040	02-07-1996 <b>12-21-1995</b> NONE 00.0	OCEMA  PUBLIC	*** EL TORO LOCAL REDEVELOPMENT AUTHORITY: PRELIMINARY NON-AVIATION CONCEPTS REPORTS: MCAS EL TORO REUSE PLAN RPT, NO.1	NON-ADMIN RECORD	EL TORO REUSE		SOUTHWEST DIVISION
M62535 / 000950  MISC NONE 0001	06-28-1996 <b>12-28-1995</b> NONE 10.0	TUSTIN NEWS P. STOKER PUBLIC	PUBLIC NOTICE ANNOUNCING JANUARY 9, 1996 BASE CLOSURE TASK FORCE MEETING	ADMIN RECORD	CLOSURE MEDIA MOFF. PUB PART. PUBLIC NOTICE PUBLIC PART.	00001 00002 00003 00004 00005 00006 00007 00008 00009 00010 00011 00012 00013 00014 00015 00016 OU 1 OU 2 OU 3	SOUTHWEST DIVISION

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M62535 / 000719  FACT N68711-92-D4670 0006	01-30-1996 <b>01-01-1996</b> 00063 01.1	MCAS TUSTIN C. WIEMERT PUBLIC	FACT SHEET #5 JANUARY 1996 " FAST- TRACK STUDIES FOCUS ON REDUCING COST AND SCHEDULE"	ADMIN RECORD	COMM REL FACT SHEET PUBLIC PART.	00001 00003 00005 00007 00012 00013 00016 0007N 0007S 0013E 0013W OU 3	SOUTHWEST DIVISION
M62535 / 001567  NEWS NONE 0001	02-19-1998 <b>01-09-1996</b> NONE 10.3	O.C. REGISTER  PUBLIC	NEWSPAPER ARTICLE "BASE HOUSING - FOR THE HOMELESS - PLANS FOR THE TUSTIN AIR STATION INCLUDE A PARK, SHELTERS AND FOUR SCHOOLS"	ADMIN RECORD	BCT CLOSURE MEDIA		SOUTHWEST DIVISION
M62535 / 001569  NEWS NONE 0001	02-19-1998 <b>01-10-1996</b> NONE 10.3	O.C. REGISTER  PUBLIC	NEWSPAPER ARTICLE "IRVINE AND TUSTIN HAVE ANOTHER PIECE OF LAND TO DIVVY UP"	ADMIN RECORD	MEDIA PARCEL		SOUTHWEST DIVISION
M62535 / 001570  NEWS NONE 0001	02-19-1998 <b>01-10-1996</b> NONE 10.3	O.C. REGISTER  PUBLIC	NEWSPAPER ARTICLE "TUSTIN BASE PANEL MAKES RECOMMENDATIONS FOR USE"	ADMIN RECORD	MEDIA		SOUTHWEST DIVISION
M62535 / 001182  NEWS NONE 0023	12-12-1996 <b>01-11-1996</b> NONE 10.3	MCAS TUSTIN  PUBLIC	PUBLIC NOTICE REVISION REGARDING OPERABLE UNIT 3 PUBLIC REVIEW AND COMMENT PERIOD EXTENDED PLUS NOTICE OF PUBLIC MEETING	ADMIN RECORD	MEDIA MOFF. PUB PART PUBLIC NOTICE PUBLIC PART.	00001 OU 3	SOUTHWEST DIVISION

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M62535 / 001190  MM NONE 0011	01-13-1997 <b>01-17-1996</b> NONE 10.4	SOUTHWEST DIVISION  RAB MEMBERS	JANUARY 17, 1996 RESTORATION ADVISORY BOARD MEETING MINUTES	ADMIN RECORD	MOFF. PUB PART MTG MINS PUBLIC PART. RAB	00001 OU 3	SOUTHWEST DIVISION
M62535 / 000724  RPT NONE 0150	02-07-1996 <b>01-25-1996</b> NONE 00.0	OCEMA  PUBLIC	*** EL TORO LOCAL REDEVELOPMENT AUTHORITY: PRELIMINARY AVIATION MARKET ASSESSMENT: MCAS EL TORO REUSE PLAN REPORT NUMBER 2	ADMIN RECORD	EL TORO REUSE		SOUTHWEST DIVISION
M62535 / 000868  LTR N68711-92-D4670 0002	06-10-1996 <b>02-14-1996</b> 0063A 01.1	BECHTEL NATIONAL A. SCHWARTZ CALTRANS R. NEILSON	LETTER RESPONDING TO REQUEST FOR FACT SHEET	ADMIN RECORD	COMM REL FACT SHEET PUBLIC PART.		SOUTHWEST DIVISION
M62535 / 001571  NEWS NONE 0001	02-19-1998 <b>03-02-1996</b> NONE 10.3	O.C. REGISTER  PUBLIC	NEWSPAPER ARTICLE " PREPARING FOR THE WORST"	ADMIN RECORD	MEDIA		SOUTHWEST DIVISION
M62535 / 000838  MM N68711-92-D4670 0000	07-02-1996 <b>03-26-1996</b> 0063A 10.3	BECHTEL NATIONAL H. MASRI SOUTHWEST DIVISION P. KENNEDY	RESTORATION ADVISORY BOARD MARCH 20, 1996 PRE- AND POST MEETING PACKAGES (PUBLIC NOTICE, AGENDA, SIGN-IN SHEETS)	ADMIN RECORD	COMM REL MOFF. PUB PART PUBLIC NOTICE PUBLIC PART. RAB	00001 00003 00012 00013 00016 0005N 0005S 0007N 0007S	SOUTHWEST DIVISION

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M62535 / 000839 CTO-0063/0229 MM N68711-92-D4670 0010	05-21-1996 <b>03-26-1996</b> 0063A 10.4	BECHTEL NATIONAL H. MASRI SOUTHWEST DIVISION P. KENNEDY	MINUTES AND OTHER MATERIAL FROM JANUARY 17, 1996 RESTORATION ADVISORY BOARD MEETING	ADMIN RECORD INFO REPOSITORY	COMM REL MTG MINS PUBLIC PART. RAB		SOUTHWEST DIVISION
M62535 / 001083  MM N68711-92-D-4670 0012	08-27-1996 <b>04-11-1996</b> 0063A 10.4	BECHTEL NATIONAL  SWDIV P. KENNEDY	RESTORATION ADVISORY BOARD POST- MEETING MATERIAL MARCH 20, 1996	ADMIN RECORD	MOFF. PUB PART MTG MINS PUBLIC PART. RAB	00001 00003 00012 00016 0005N 0005S 0007N 0007S 0013E 0013W OU 3	SOUTHWEST DIVISION
M62535 / 001462  LTR NONE 0001	11-11-1997 <b>04-19-1996</b> NONE 10.0	U.S. NAVY L.F. SCHRIEFER DISTRIBUTION	LETTER FORWARDING IMPORTANT INFORMATION DIRECTLY TO RESTORATION ADVISORY BOARDS (RABS)	ADMIN RECORD	CLEANUP RAB		SOUTHWEST DIVISION
M62535 / 000840  COMM N68711-92-D4670 0040	05-21-1996 <b>04-22-1996</b> 00063 01.1	SOUTHWEST DIVISION D. CHANDLER SOUTHWEST DIVISION T. MARTIN	REQUEST FOR RESPONSE TO RAB MEMBER COMMENTS ON EE/CA FOR IRP 13W (W/RAB MEMBER COMMENTS)	ADMIN RECORD	EE/CA PUBLIC PART. RAB	0013W	SOUTHWEST DIVISION
M62535 / 000828 CTO-0063/0308 MISC N68711-92-D4670 0010	05-21-1996 <b>05-08-1996</b> 0063A 10.4	BECHTEL NATIONAL H. MASRI SOUTHWEST DIVISION P. KENNEDY	MAY 22, 1996 RESTORATION ADVISORY BOARD PRE-MEETING MATERIAL AND APRIL 18, 1996 RAB POST-MEETING MATERIAL (MINUTES)	ADMIN RECORD	COMM REL EE/CA MTG MINS PUBLIC PART. RAB	13W	SOUTHWEST DIVISION

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M62535 / 000633  MISC N68711-92-D4670 0001	06-25-1996 <b>05-22-1996</b> 0063A 01.1	MCAS TUSTIN C. WIEMERT PUBLIC	PUBLIC NOTICE FOR MAY 22, 1996 RAB MEETING	ADMIN RECORD	EE/CA MEDIA PUBLIC PART. RAB	PARCEL 13W	SOUTHWEST DIVISION
M62535 / 000866 CTO-0063/0319 MISC N68711-92-D4670 0002	06-10-1996 <b>06-03-1996</b> 0063A 01.1	BECHTEL NATIONAL VARIOUS SOUTHWEST DIVISION P. KENNEDY	PUBLIC NOTICE FOR 13 WEST EE/CA	ADMIN RECORD	COMM REL EE/CA MEDIA	PARCEL 13W	SOUTHWEST DIVISION
M62535 / 000865  MISC N68711-92-D4670 0002	06-10-1996 <b>06-04-1996</b> 0063A 10.3	BECHTEL NATIONAL H. MASRI SOUTHWEST DIVISION P. KENNEDY	RESTORATION ADVISORY BOARD JUNE 22, 1996 TOUR ANNOUNCEMENT	ADMIN RECORD	COMM REL MOFF. PUB PART PUBLIC PART. RAB	00001 00002 00003 00004 00005 00006 00007 00008 00009 00010 00012 00013 00014 00015 00016 OU 1 OU 2 OU 3	SOUTHWEST DIVISION

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M62535 / 001378  COMM NONE 0006	05-12-1997 <b>06-10-1996</b> NONE 10.1	MCAS TUSTIN D. CHANDLER SOUTHWEST DIVISION T. MARTIN	RAB MEMBERS COMMENTS ON THE DRAFT PESTICIDES INVESTIGATION REPORT AND ENVIRONMENTAL BASELINE SURVEY (EBS) FOR PARCELS 6 8B 11A 33 38 39 41A AND 41B	ADMIN RECORD	COMMENTS EBS PESTICIDES PUBLIC PART. RAB	PARCEL 11A PARCEL 33 PARCEL 38 PARCEL 39 PARCEL 41A PARCEL 41B PARCEL 6 PARCEL 8B	SOUTHWEST DIVISION
M62535 / 000232  RESP N68711-92-D4670 0008	06-20-1996 <b>06-13-1996</b> 00049 01.1	BECHTEL NATIONAL H. MASRI VARIOUS AGENCIES	RESPONSE TO COMMENTS (FROM BCT AND RAB) ON DRAFT IRP-13W EE/CA	ADMIN RECORD	EE/CA RAB TECHNICAL DOC.	0013W	SOUTHWEST DIVISION
M62535 / 001149  NEWS NONE 0030	10-21-1996 <b>06-13-1996</b> NONE 10.3	NEWSPAPERS  PUBLIC	NEWSPAPER ARTICLES, PUBLIC NOTICE OF AVAILABILITY AT INFORMATION REPOSITORY AT UC IRVINE	ADMIN RECORD	MEDIA MOFF. PUB PART PUBLIC NOTICE PUBLIC PART.		SOUTHWEST DIVISION
M62535 / 001406  NOTE NONE 0001	06-16-1997 <b>06-14-1996</b> NONE 10.3	MCAS TUSTIN D. CHANDLER PUBLIC	PUBLIC NOTICE FOR CLEANUP PROPOSED FOR FORMER DRUM STORAGE AREA IRP-13W - INVITATION FOR THE PUBLIC TO REVIEW AND COMMENT ON THE EE/CA	ADMIN RECORD	CLEANUP COMMENTS DRUMS MEDIA PUBLIC PART.	0013W	SOUTHWEST DIVISION
M62535 / 000321 CTO-0063/0310 MM N68711-92-D-4670 0010	12-16-1999 <b>06-19-1996</b> 00063 10.4	BECHTEL NATIONAL INC H. MASRI RAB MAILING LIST	RESTORATION ADVISORY BOARD POST- MEETING MATERIALS FROM MAY 22, 1996 RAB MEETING	ADMIN RECORD	LF MTG MINS RAB SOIL	13W	SOUTHWEST DIVISION
M62535 / 000991 CTO-0063/0341 EECA N68711-92-D-4670 0040	07-10-1996 <b>06-24-1996</b> 0063A 02.4	BECHTEL NATIONAL H. MASRI SOUTHWEST DIVISION P. KENNEDY	BASE HOUSING NOTICE FOR 13W EE/CA CONTAINS CONFIDENTIAL INFORMATION	ADMIN RECORD CONFIDENTIAL DOC	EE/CA PUBLIC PART.	0013W	SOUTHWEST DIVISION

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M62535 / 001002  NEWS NONE 0001	07-10-1996 <b>06-25-1996</b> NONE 10.6	REGISTER G. STEWART TUSTIN COMMUNITY MEMBER	PUBLIC NOTICE COAST GUARD HOUSING REQUEST COULD QUASH MARINE TUSTIN BASE REUSE PLAN	ADMIN RECORD	REUSE		SOUTHWEST DIVISION
M62535 / 001385  COMM NONE 0003	05-14-1997 <b>07-03-1996</b> NONE 10.1	MCAS TUSTIN D. CHANDLER SOUTHWEST DIVISION T. MARTIN	PUBLIC COMMENTS REGARDING EE/CA SITE 13W DRUM STORAGE AREA #3 - LETTER FROM RESIDENT OUTLINING SOME DIFFICULTIES EXPERIENCED DURING BASE CLEANUP	ADMIN RECORD	CLEANUP EE/CA PUBLIC COMMEN PUBLIC PART.	0013W	SOUTHWEST DIVISION
M62535 / 001389  LTR NONE 0001	05-14-1997 <b>07-03-1996</b> NONE 03.4	MCAS TUSTIN D. CHANDLER VARIOUS AGENCIES	REQUEST FOR REVIEW AND COMMENT ON THE DRAFT REMEDIAL INVESTIGATION AND FEASIBILITY STUDY FOR OPERABLE UNIT 3 WITHOUT ENCLOSURE	ADMIN RECORD	COMMENTS FS OPERABLE UNIT REMEDIAL INVES	OU 3	SOUTHWEST DIVISION
M62535 / 001105 CTO-0049/0559 RPT N68711-92-D-4670 0200	08-27-1996 <b>07-08-1996</b> 00049 00.0	BECHTEL NATIONAL K. BELGARDE SOUTHWEST DIVISION	DRAFT REMEDIAL INVESTIGATION REPORT FOR OPERABLE UNIT 3, VOLUMES 1 AND 2	ADMIN RECORD	MOFFETT TRENC OPERABLE UNIT REMEDIAL INVES TECHNICAL DOC.	00001 OU 3	SOUTHWEST DIVISION
M62535 / 001041 CTO- 0049/0732/0725* LTR N68711-92-D-4670 0002	07-22-1996 <b>07-09-1996</b> 00049 01.0	BECHTEL NATIONAL H. MASRI SOUTHWEST DIVISION P. KENNEDY	LETTER TO THE REGULATORS REGARDING DRAFT REMEDIAL INVESTIGATION AND FEASIBILITY STUDY REPORTS FOR OPERABLE UNIT 3 (W/O ENCLOSURE)	ADMIN RECORD	FEASIBILITY STU. MOFFETT TRENC OPERABLE UNIT REMEDIAL INVES	00001 OU 3	SOUTHWEST DIVISION
M62535 / 001076 CTO-0049/0558 RPT N68711-92-D-4670 0100	07-31-1996 <b>07-10-1996</b> 00049 00.0	BECHTEL NATIONAL H. MASRI SOUTHWEST DIVISION P. KENNEDY	DRAFT FEASIBILITY STUDY REPORT FOR OPERABLE UNIT 3	ADMIN RECORD	FEASIBILITY STU. MOFFETT TRENC OPERABLE UNIT REMEDIAL INVES	00001 OU 3	SOUTHWEST DIVISION



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M62535 / 001727  RPT N68711-92-D-4670 0100	01-10-1999 <b>07-10-1996</b> 00049 03.0	BECHTEL NATIONAL H. MASRI SOUTHWEST DIVISION P. KENNEDY	DRAFT REMEDIAL INVESTIGATION REPORT FOR OPERABLE UNIT 3, JULY 1996 VOLUME 1 OF 2	ADMIN RECORD	MOFFETT TRENC REMEDIAL INVES	MCAS	SOUTHWEST DIVISION
M62535 / 001271  LTR NONE 0025	03-17-1997 <b>07-12-1996</b> NONE 10.0	DTSC LONG BEACH M. MINGAY MCAS TUSTIN D. CHANDLER	COMPILING OF RAB SURVEY RESULTS	ADMIN RECORD	BCT PUBLIC PART. RAB SURVEY		SOUTHWEST DIVISION
M62535 / 001273  LTR NONE 0002	03-17-1997 <b>07-16-1996</b> NONE 10.1	EPA SAN FRANCISCO D. HODGES VARIOUS AGENCIES	DELAY IN SUBMITTING COMMENTS ON THE DRAFT REMEDIAL INVESTIGATION/FEASIBILITY STUDY FOR OPERABLE UNIT 3	ADMIN RECORD	COMMENTS FEASIBILITY STU. MOFFETT TRENC OPERABLE UNIT REMEDIAL INVES	OU 3	SOUTHWEST DIVISION
M62535 / 001051  NOTE N68711-92-D-4670 0010	07-24-1996 <b>07-17-1996</b> 00063 10.3	BECHTEL NATIONAL H. MASRI SOUTHWEST DIVISION P. KENNEDY	PUBLIC NOTICE - RESTORATION ADVISORY BOARD MEETING JULY 31, 1996 SENT TO RAB MEMBERS AND WITH MAILING LIST	ADMIN RECORD	MEDIA PUBLIC PART. RAB		SOUTHWEST DIVISION
M62535 / 001246  COMM NONE 0004	03-06-1997 <b>08-14-1996</b> NONE 10.1		SUBCOMMITTEE COMMENTS ON REMEDIAL INVESTIGATION/ FEASIBILITY STUDY OU3 AND RAB COMMENTS ON DRAFT FEASIBILITY STUDY FOR OU3	ADMIN RECORD	COMMENTS FEASIBILITY STU. OPERABLE UNIT RAB REMEDIAL INVES	OU 3	SOUTHWEST DIVISION
M62535 / 001447  LTR NONE 0004	09-24-1997 <b>08-28-1996</b> 00049 10.1	US EPA SAN FRANCISCO D. HODGES VARIOUS AGENCIES	USEPA REVIEW OF THE DRAFT FEASIBILITY STUDY REPORT FOR OPERABLE UNIT 3	ADMIN RECORD	ARAR CERCLA FEASIBILITY STU. MOFFETT TRENC OPERABLE UNIT USEPA	00001 OU 3	SOUTHWEST DIVISION

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M62535 / 001245  NOTE NONE 0001	03-06-1997 <b>09-04-1996</b> NONE 10.1	DTSC LONG BEACH M. IBRAHIM PUBLIC	PUBLIC NOTICE: INVITATION TO REVIEW AND COMMENT ON A DRAFT NEGATIVE DECLARATION. THE PROPOSED AREA FOR SOIL CLEANUP IS THE NORTHWESTERN AREA OF MCAS TUSTIN	ADMIN RECORD	CLEANUP COMMENTS PUBLIC NOTICE SOIL		SOUTHWEST DIVISION
M62535 / 001168  RESP N68711-92-D-4670 0020	12-02-1996 <b>09-10-1996</b> 00049 10.1	BECHTEL NATIONAL H. MASRI SOUTHWEST DIVISION P. KENNEDY	RESPONSE TO BCT AND RAB COMMENTS ON OU 3 REMEDIAL INVESTIGATION/FEASIBILITY STUDY REPORTS	ADMIN RECORD	BCT COMMENTS FEASIBILITY STU. MOFF. PUB PART RAB REMEDIAL INVES	00001 OU 3	SOUTHWEST DIVISION
M62535 / 001446  COMM NONE 0008	09-24-1997 <b>09-10-1996</b> 00049 10.1	CRWQCB M. IBRAHIM VARIOUS AGENCIES	CRWQCB AND DTSC COMMENTS ON REMEDIAL INVESTIGATION/ FEASIBILITY STUDY FOR OPERABLE UNIT 3	ADMIN RECORD	COMMENTS FEASIBILITY STU. MOFFETT TRENC REMEDIAL INVES	OU 3	SOUTHWEST DIVISION
M62535 / 001242  COMM NONE 0009	03-06-1997 <b>09-11-1996</b> NONE 10.1	DTSC LONG BEACH M. IBRAHIM VARIOUS AGENCIES	COMMENTS ON THE REVIEW OF THE REMEDIAL INVESTIGATION/ FEASIBILITY STUDY FOR OPERABLE UNIT 3	ADMIN RECORD	COMMENTS FEASIBILITY STU. MOFFETT TRENC OPERABLE UNIT REMEDIAL INVES	OU 3	SOUTHWEST DIVISION
M62535 / 001153 CTO-0063/0435 NEWS N68711-92-D-4670 0008	10-21-1996 <b>10-01-1996</b> 00063 10.6	MCAS TUSTIN  PUBLIC	FINAL FACT SHEET #6 - PROPOSED PLAN FOR LANDFILL TRENCHES AND CRASH CREW BURN PITS	ADMIN RECORD	FACT SHEET MEDIA MOFF. PUB PART MOFFETT TRENC PUBLIC PART.	1 OU 3	SOUTHWEST DIVISION
M62535 / 001238  COMM NONE 0006	03-06-1997 <b>10-07-1996</b> NONE 10.1	DTSC LONG BEACH M. IBRAHIM VARIOUS AGENCIES	COMMENTS ON THE REVIEW OF THE PROPOSED PLAN FOR OPERABLE UNIT 3	ADMIN RECORD	COMMENTS MOFFETT TRENC OPERABLE UNIT	OU 3	SOUTHWEST DIVISION

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M62535 / 001436  COMM NONE 0050	09-22-1997 <b>10-07-1996</b> 00049 03.3	DTSC LONG BEACH M. IBRAHIM SOUTHWEST DIVISION VARIOUS AGENCIES	DATA PACKAGE FOR OPERABLE UNIT 3 INCLUDES REVIEW OF PROPOSED PLAN COMMENTS AND RESPONSES	ADMIN RECORD	COMMENTS MOFFETT TRENC OPERABLE UNIT	OU 1 OU 3	SOUTHWEST DIVISION
M62535 / 001170  RESP N68711-92-D-4670 0020	12-02-1996 <b>10-10-1996</b> 00054 10.1	BECHTEL NATIONAL H. MASRI SWDIV R. SELBY	RESPONSE TO USEPA, DTSC AND RAB COMMENTS ON THE DRAFT ESI REPORT PLUS COVER LETTER SENT TO REGULATORS	ADMIN RECORD	COMMENTS ESI TECHNICAL DOC.	00002 00008 OU 2	SOUTHWEST DIVISION
M62535 / 001171  NOTE N68711-92-D-4670 0002	12-02-1996 <b>10-16-1996</b> 0063A 10.3	BECHTEL NATIONAL H. MASRI SOUTHWEST DIVISION R. SELBY	FINAL PUBLIC NOTICE FOR OPERABLE UNIT 3 - MOFFETT TRENCHES AND CRASH CREW BURN PITS	ADMIN RECORD	CRASH BURN PIT MOFF. PUB PART MOFFETT TRENC OPERABLE UNIT PUBLIC NOTICE	00001 OU 3	SOUTHWEST DIVISION
M62535 / 001174  MM N68711-92-D-4670 0002	12-02-1996 <b>10-16-1996</b> 0063A 10.3	MCAS TUSTIN S. MATTHEWS PUBLIC	OCTOBER 24, 1996 RESTORATION ADVISORY BOARD PUBLIC NOTICE	ADMIN RECORD	MOFF. PUB PART PUBLIC RAB	00001	SOUTHWEST DIVISION
M62535 / 001470  NEWS NONE 0001	11-12-1997 <b>10-25-1998</b> NONE 10.3	FLIGHT JACKET  PUBLIC	NEWSPAPER ARTICLE "TASK FORCE APPROVES PLAN FOR TUSTIN"	ADMIN RECORD	CLOSURE MEDIA PUBLIC PART. REUSE		SOUTHWEST DIVISION
M62535 / 001172  NOTE N68711-92-D-4670 0003	12-02-1996 <b>10-28-1996</b> 0063A 10.3	BECHTEL NATIONAL H. MASRI SOUTHWEST DIVISION R. SELBY	FINAL PUBLIC NOTICE FOR OPERABLE UNIT 3 MOFFETT TRENCHES AND CRASH CREW BURN PITS, PUBLIC MEETING ON NOVEMBER 7, 1996 AND PUBLIC COMMENT PERIOD	ADMIN RECORD	COMMENTS CRASH BURN PIT MOFF. PUB PART MOFFETT TRENC OPERABLE UNIT PUBLIC PUBLIC NOTICE	00001 OU 3	SOUTHWEST DIVISION

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M62535 / 001718  RESP N68711-92-D-4670 0020	01-04-1999 10-29-1996 00049 10.1	BECHTEL NATIONAL H. MASRI SOUTHWEST DIVISION P. KENNEDY	RESPONSE TO BCT AND RAB COMMENTS ON THE OU-3 REMEDIAL INVESTIGATION AND FEASIBILITY STUDY REPORTS	ADMIN RECORD	BCT COMMENTS MOFFETT TRENC RAB TECHNICAL DOC.	OU 3	SOUTHWEST DIVISION
M62535 / 001169  LTR N68711-92-D-4670 0010	12-02-1996 <b>10-30-1996</b> 0063A 10.0	BECHTEL NATIONAL H. MASRI SOUTHWEST DIVISION R. SELBY	TECHNICAL DOCUMENT DISTRIBUTION PACKAGE INCLUDING SUBCOMMITTEE MAILING LABELS, GENERAL RAB MEMBERSHIP TRANSMITTAL LETTER FOR EXECUTIVE SUMMARY	ADMIN RECORD	MOFF. PUB PART RAB REMEDIAL INVES	00001 OU 1	SOUTHWEST DIVISION
M62535 / 001166  FACT N68711-92-D-4670 0015	12-02-1996 <b>11-07-1996</b> 0063A 10.6	BECHTEL NATIONAL H. MASRI SWDIV R. SELBY	PUBLIC MEETING AGENDA AND HANDOUTS THAT WERE DISTRIBUTED DURING THE NOVEMBER 7, 1996 PUBLIC MEETING	ADMIN RECORD	MOFF. PUB PART MTG MINS PUBLIC NOTICE PUBLIC PART.	00001 OU 3	SOUTHWEST DIVISION
M62535 / 001341  MM N68711-92-D-4670 0016	04-03-1997 <b>11-13-1996</b> 00049 10.4	BECHTEL NATIONAL H. MASRI SOUTHWEST DIVISION R. SELBY	MINUTES FROM THE NOVEMBER 13 1996 OPERABLE UNIT 1 FEASIBILITY STUDY MEETING	ADMIN RECORD	FEASIBILITY STU. MTG MINS OPERABLE UNIT TECHNICAL DOC.	00003 00012 OU 1	SOUTHWEST DIVISION
M62535 / 001506  MISC N68711-92-D-4670 0075	12-03-1997 <b>11-16-1996</b> 00063 10.4	BECHTEL NATIONAL H. MASRI DISTRIBUTION	HANDOUTS FROM NOVEMBER 16, 1996 RISK ASSESSMENT AND DATA VALIDATION WORKSHOP PRESENTED TO TUSTIN AND EL TORO RESTORATION ADVISORY BOARDS	ADMIN RECORD	FEASIBILITY STU. PUBLIC PART. RAB REMEDIAL INVES RISK		SOUTHWEST DIVISION
M62535 / 001233  LTR NONE 0001	03-06-1997 <b>11-18-1996</b> NONE 03.4	EPA SAN FRANCISCO D. HODGES VARIOUS AGENCIES	LETTER REQUESTING ADDITIONAL TIME TO REVIEW DRAFT REMEDIAL INVESTIGATION REPORT FOR OPERABLE UNITS 1 AND 2	ADMIN RECORD	OPERABLE UNIT REMEDIAL INVES TECHNICAL DOC.	OU 1 OU 2	SOUTHWEST DIVISION

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M62535 / 001584  LTR NONE 0003	02-26-1998 <b>11-18-1996</b> 00049 3.6	CITY OF TUSTIN C. A SHINGLETON MCAS TUSTIN T. CAUGHLAN	PROPOSED INVESTIGATION AND EVALUATION ALTERNATIVES FOR OPERABLE UNIT 3	ADMIN RECORD	CLEANUP MOFFETT TRENC	OU 3	SOUTHWEST DIVISION
M62535 / 001444  LTR NONE 0001	09-24-1997 <b>11-19-1996</b> 00049 3.6	EPA SAN FRANCISCO D. HODGES VARIOUS AGENCIES	USEPA REVIEW OF THE DRAFT REMEDIAL INVESTIGATION REPORT FOR OPERABLE UNITS 1 AND 2.	ADMIN RECORD	OPERABLE UNIT REMEDIAL INVES TECHNICAL DOC. USEPA	OU 1 OU 2	SOUTHWEST DIVISION
M62535 / 000670 NONE MISC NONE 0025	12-17-1999 <b>11-25-1996</b> NONE 10.1	COMMUNITY  MCAF TUSTIN D. CHANDLER	VARIOUS COMMENTS FROM COMMUNITY MEMBERS ON PROPOSED INVESTIGATION AND EVALUATION ALTERNATIVES FOR OPERABLE UNIT 3 (REF. A.R. #1584)	ADMIN RECORD	CLEANUP COMMENTS	1 OU 3	SOUTHWEST DIVISION
M62535 / 001230  COMM NONE 0003	03-06-1997 <b>11-27-1996</b> NONE 03.4	EPA SAN FRANCISCO D. HODGES VARIOUS AGENCIES	REVIEW AND COMMENTS REGARDING DRAFT REMEDIAL INVESTIGATION REPORT APPENDIX E-PRECISION, ACCURACY, COMPLETENESS, REPRESENTITIVENESS, AND COMPARABILITY	ADMIN RECORD	COMMENTS REMEDIAL INVES TECHNICAL DOC.		SOUTHWEST DIVISION
M62535 / 001491  NEWS NONE 0001	11-17-1997 <b>12-05-1996</b> NONE 10.3	IRVINE WORLD NEWS  PUBLIC	NEWSPAPER ARTICLE "IRWD, TUSTIN AGREE ON WATER AND SEWER PLAN FOR HELICOPTER BASE REDEVELOPMENT"	ADMIN RECORD	WATER		SOUTHWEST DIVISION
M62535 / 001492  NEWS NONE 0001	11-17-1997 <b>12-05-1996</b> NONE 10.3	IRVINE WORLD NEWS  PUBLIC	NEWSPAPER ARTICLE "TUSTIN CITY OFFICIALS WANTS NAVY COMMITMENT TO CLEAN UP OLD LANDFILL"	ADMIN RECORD	CLEANUP FUEL MOFF. PUB PART MOFFETT TRENC		SOUTHWEST DIVISION

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M62535 / 001251  LTR NONE 0001	03-10-1997 <b>12-06-1996</b> NONE 04.2	EPA SAN FRANCISCO D. HODGES VARIOUS AGENCIES	REQUEST FOR EXTENSION REGARDING REVIEW AND COMMENTS ON THE DRAFT FEASIBILITY STUDY REPORT FOR OPERABLE UNITS 1 AND 2	ADMIN RECORD	COMMENTS FEASIBILITY STU. OPERABLE UNIT TECHNICAL DOC.	OU 1 OU 2	SOUTHWEST DIVISION
M62535 / 001318  MM N68711-92-D-4670 0012	04-01-1997 <b>01-06-1997</b> 00063 10.4	BECHTEL NATIONAL H. MASRI DISTRIBUTION	OCTOBER 24, 1996 RESTORATION ADVISORY BOARD POST MEETING MATERIAL - MEETING MINUTES AND ATTACHMENTS	ADMIN RECORD	MTG MINS PUBLIC PART. RAB	00007 00013 00015 00016 0013S OU 1 OU 2 OU 3 ST 72	SOUTHWEST DIVISION
M62535 / 001308  COMM NONE 0016	04-01-1997 <b>01-24-1997</b> 00049 10.1	DTSC LONG BEACH M. IBRAHIM VARIOUS AGENCIES	REVIEW COMMENTS ON THE REMEDIAL INVESTIGATION/ FEASIBILITY STUDY FOR OPERABLE UNIT 1 AND OPERABLE UNIT 2	ADMIN RECORD	COMMENTS FEASIBILITY STU. OPERABLE UNIT REMEDIAL INVES TECHNICAL DOC.	00003 00006 00009 00012 0007N 0007S 0013W MMS 05 OU 1 OU 2 ST 72	SOUTHWEST DIVISION

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M62535 / 001309 COMM N68711-92-D-4670 0015	04-01-1997 <b>01-27-1997</b> 00074 10.1	BECHTEL NATIONAL H. MASRI DTSC LONG BEACH M. IBRAHIM	RESPONSE TO DTSC AND RAB SUBCOMMITTEE COMMENTS ON THE DRAFT RCRA FACILITY ASSESSMENT REPORT AND DRAFT RESPONSE TO BCT/RAB COMMENTS	ADMIN RECORD	BCT COMMENTS FACILITY ASSESS RAB RCRA TECHNICAL DOC.	AD 01 AD 02 AD 03 AD 04 AMBP 01 AMHP 01 AMS 04 AMS 07 AMS 09 AMS 10 AMS 11 AMS 12 AMW 01 AS 06 AS 08 AST 02 AST 03 AST 04 DI 01 DSD 02 DSD 03 DSD 04 DSD 05 DSD 06 DSD 07 DSD 08 DSS 01 DSS 02 MMS 01 MWA 01 MWA 03 MWA 07 MWA 08 MWA 15 SAT 05	SOUTHWEST DIVISION

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						ST 67 ST 72 TOW 13 TOW 18 TOW X3 TOW X4	
M62535 / 001310  COMM NONE 0009	04-01-1997 <b>01-28-1997</b> 00049 10.1	RAB S. REYNOLDS DISTRIBUTION	RESTORATION ADVISORY BOARD (RAB) COMMENTS ON THE OPERABLE UNIT 1 & 2 REMEDIAL INVESTIGATION REPORT	ADMIN RECORD	COMMENTS OPERABLE UNIT RAB REMEDIAL INVES TECHNICAL DOC.	00001 00003 00005 00006 00011 00012 00013 00016 0013W DSS 01 DSS 02 MMSO 04 MMSO 05 ST 67 ST 72 TOW 18A	SOUTHWEST DIVISION
M62535 / 001350  LTR N68711-92-D-4670 0009	04-03-1997 <b>01-30-1997</b> 00063 10.3	BECHTEL NATIONAL H. MASRI SOUTHWEST DIVISION R. SELBY	JANUARY 30 1997 RESTORATION ADVISORY BOARD (RAB) PRE- MEETING MATERIAL (MEETING NOTICE AND DRAFT AGENDA) UNREDACTED VERSION AT SOUTHWEST DIVISION	ADMIN RECORD	COMMENTS NOTICE OPERABLE UNIT PUBLIC PART. RAB REMEDIAL INVES SURVEY	OU 1 OU 2	SOUTHWEST DIVISION



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M62535 / 001065 CTO-0049/0925 RPT N68711-92-D-4670 0090	03-29-2000 <b>02-01-1997</b> 00049	BECHTEL NATIONAL INC.  NAVFAC - SOUTHWEST DIVISION R. SELBY	DRAFT RECORD OF DECISION - MOFFETT TRENCHES AND CRASH CREW BURN PITS SITE (REFERENCE AR #1453, COMMENTS ON DRAFT ROD)	ADMIN RECORD	ARAR COPC CRASH CREW FS GW HHRA MOFFETT TRENC OU PAH PCB RI ROD VOC	1 OU 3	SOUTHWEST DIVISION
M62535 / 001301  RPT N68711-92-D-4670 0060	03-27-1997 <b>02-11-1997</b> 00049 10.4	BECHTEL NATIONAL H. MASRI SOUTHWEST DIVISION R. SELBY	TRANSCRIPTS FOR MOFFETT TRENCHES AND CRASH CREW BURN PITS OPERABLE UNIT 3 PUBLIC COMMENT MEETING DATED NOVEMBER 7, 1996	ADMIN RECORD	COMMENTS MOFFETT TRENC OPERABLE UNIT PUBLIC COMMEN	OU 3	SOUTHWEST DIVISION
M62535 / 001355  COMM NONE 0022	04-30-1997 <b>02-13-1997</b> 00049 10.1	BECHTEL NATIONAL K. BELGARDE DISTRIBUTION	DRAFT RESPONSE TO PUBLIC COMMENTS ON OU3 HANDED AT THE OU3 RAB SUBCOMMITTEE MEETING ON FEBRUARY 13 1997	ADMIN RECORD	OPERABLE UNIT PUBLIC COMMEN RAB	OU 3	SOUTHWEST DIVISION
M62535 / 001314  NOTE N68711-92-D-4670 0003	04-01-1997 <b>02-18-1997</b> 00063 10.3	BECHTEL NATIONAL H. MASRI SOUTHWEST DIVISION R. SELBY	FEBRUARY 27, 1997 RESTORATION ADVISORY BOARD PRE-MEETING MATERIALS (MEETING NOTICE AND DRAFT AGENDA)	ADMIN RECORD	MTG MINS PUBLIC PUBLIC PART. RAB	OU 1 OU 2 OU 3	SOUTHWEST DIVISION

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M62535 / 001326 COMM N68711-92-D-4670 0035	04-04-1997 <b>03-27-1997</b> 00074 10.1	BECHTEL NATIONAL H. MASRI VARIOUS AGENCIES	RESPONSE TO RAB RFA SUBCOMMITTEE COMMENTS ON THE DRAFT DATA PACKAGE FOR TEN NEW AOC'S AND FOUR EXPANDED AOC'S	ADMIN RECORD	AREA CONCE COMMENTS DATA RAB TECHNICAL DOC.	AD 01 AD 02 AD 03 AD 04 AMBP 01 AMHP 01 AMS 04 AMS 07 AMS 09 AMS 10 AMS 11 AMS 12 AMW 01 AS 06 AS 08 AST 02 AST 03 AST 04 DI 01 DSD 02 DSD 03 DSD 04 DSD 05 DSD 06 DSD 07 DSD 08 DSS 01 DSS 02 MDA 01 MDA 02 MDA 03 MDA 04 MDA 05 MDA 06 MDA 07	SOUTHWEST DIVISION

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						MDA 08 MDA 09 MDA 10 MMS 01 MWA 01 MWA 03 MWA 07 MWA 08 MWA 15 OU 1 OU 3 SAT 01 ST 67 ST 72 ST 72B TOW 18 TOW 18B TOW X3 TOW X4	
M62535 / 001337  FACT N68711-92-D4670 0001	04-23-1997 <b>04-03-1997</b> 0063A 10.6	BECHTEL NATIONAL H. MASRI SOUTHWEST DIVISION R. SELBY	COVER LETTER FOR COPIES OF FACT SHEET #7 (#5 UNDER CLEAN II)-CLEANUP ACTIVITIES COMPLETE FORMER FUEL TANK FARM WITHOUT ENCLOSURES	ADMIN RECORD	CLEANUP FUEL		SOUTHWEST DIVISION
M62535 / 001471  NEWS NONE 0001	11-12-1997 <b>04-03-1997</b> NONE 10.3	TUSTIN NEWS  PUBLIC	NEWSPAPER ARTICLE " BASE CLEANUP A BIG JOB"	ADMIN RECORD	CLEANUP FUEL MEDIA MOFF. PUB PART MOFFETT TRENC PUBLIC PART. RAB		SOUTHWEST DIVISION

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M62535 / 001344  LTR NONE 0004	04-30-1997 <b>04-15-1997</b> 00049 03.4	EPA SAN FRANCISCO N. MOUTOUX VARIOUS AGENCIES	USEPA REVIEW OF THE DRAFT REMEDIAL INVESTIGATION REPORT FOR OPERABLE UNIT 1 & OPERABLE UNIT 2	ADMIN RECORD	OPERABLE UNIT REMEDIAL INVES TECHNICAL DOC.	OU 1 OU 2 OU 3	SOUTHWEST DIVISION
M62535 / 001472  NEWS NONE 0001	11-12-1997 <b>04-24-1997</b> NONE 10.3	TUSTIN NEWS  PUBLIC	NEWSPAPER ARTICLE "SAVING THE HANGARS ENDORSED"	ADMIN RECORD	PUBLIC		SOUTHWEST DIVISION
M62535 / 001508  MM N68711-92-D-4670 0014	12-03-1997 <b>04-24-1997</b> 00063 10.4	BECHTEL NATIONAL H. MASRI VARIOUS AGENCIES	APRIL 24, 1997 RESTORATION ADVISORY BOARD POST-MEETING MATERIAL (MINUTES AND ATTACHMENTS)	ADMIN RECORD	LEAD LUFT MOFFETT TRENC MTG MINS PUBLIC PART. RAB	0007S 0013W APRON 2 OU 1	SOUTHWEST DIVISION
M62535 / 001407  COMM N68711-92-D-4670 0011	06-16-1997 <b>05-01-1997</b> 00049 10.1	BECHTEL NATIONAL H. MASRI VARIOUS AGENCIES	RESPONSE TO SUBCOMMITTEE & CITY OF TUSTIN'S COMMENTS ON THE DRAFT REMEDIAL INVESTIGATION REPORT OPERABLE UNIT 1 AND 2	ADMIN RECORD	COMMENTS REMEDIAL INVES TECHNICAL DOC.	00001 00003 00005 00012 00013 00016 0013W OU 1 OU 2 ST 72	SOUTHWEST DIVISION
M62535 / 001487  RESP NONE 0020	11-12-1997 <b>05-07-1997</b> 00049 10.1	CITY OF TUSTIN D. OGDEN VARIOUS AGENCIES	CITY OF TUSTIN'S DRAFT RESPONSES TO COMMENTS, OPERABLE UNIT 3	ADMIN RECORD	COMMENTS MOFFETT TRENC RAB REUSE	OU 3	SOUTHWEST DIVISION

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M62535 / 001437  LTR NONE 0002	09-22-1997 <b>05-22-1997</b> NONE 10.1	CITY OF TUSTIN D. OGDEN MCAS TUSTIN D. CHANDLER	FINAL RESPONSES TO SUBCOMMITTEE COMMENTS FOR DRAFT REMEDIAL INVESTIGATION REPORT OPERABLE UNITS 1 AND 2	ADMIN RECORD	COMMENTS OPERABLE UNIT REMEDIAL INVES	00003 00013 0013W OU 1 OU 2	SOUTHWEST DIVISION
M62535 / 001423 CTO-0049/1143 RPT N68711-92-D-4670 0035	08-20-1997 <b>06-01-1997</b> 00049 05.1	SOUTHWEST DIVISION D. CHANDLER VARIOUS AGENCIES	RECORD OF DECISION OPERABLE UNIT 3 MOFFETT TRENCHES AND CRASH CREW BURN PITS SITE	ADMIN RECORD	CRASH BURN PIT MOFFETT TRENC OPERABLE UNIT ROD	OU 3	SOUTHWEST DIVISION
M62535 / 001481  NOTE N68711-92-D-4670 0009	11-12-1997 <b>06-11-1997</b> 0063A 10.4	BECHTEL NATIONAL H. MASRI VARIOUS AGENCIES	JUNE 24, 1997 RESTORATION ADVISORY BOARD PRE-MEETING AND POST MEETING MATERIALS (PUBLIC NOTICE, AGENDA, AND MEETING MINUTES)	ADMIN RECORD	FEASIBILITY STU IRP PUBLIC PUBLIC PART. RAB REMEDIAL INVES	00002 00003 00012 0013S 0013W OU 1 ST 72	SOUTHWEST DIVISION
M62535 / 001572  NEWS NONE 0002	02-24-1998 <b>07-01-1997</b> NONE 10.3	TUSTIN NEWS  PUBLIC	NEWSPAPER ARTICLE "MARINES DUMPING CLEAN-UP SOLUTION"	ADMIN RECORD	MEDIA MOFF. PUB PART MOFFETT TRENC REUSE		SOUTHWEST DIVISION
M62535 / 001466  LTR NONE 0002	11-11-1997 <b>07-22-1997</b> 00049 5.4	DTSC LONG BEACH M. IBRAHIM VARIOUS AGENCIES	REVIEW OF THE DRAFT RECORD OF DECISION FOR OPERABLE UNIT 3	ADMIN RECORD	MOFFETT TRENC OPERABLE UNIT ROD	OU 3	SOUTHWEST DIVISION

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M62535 / 001469  COMM NONE 0027	11-11-1997 <b>07-28-1997</b> 00049 10.1	MCAS TUSTIN G. OPRIA VARIOUS AGENCIES	CAPTAIN GEORGE OPRIA'S COMMENTS ON RESPONSE TO COMMENTS ON OPERABLE UNIT 1 FEASIBILITY STUDY	ADMIN RECORD	BRAC COMMENTS FEASIBILITY STU. LEAD REMEDIAL INVES REUSE	00003 00012 0013S 0013W OU 1 OU 2 OU 3 ST 72	SOUTHWEST DIVISION
M62536 / 001463  RESP NONE 0021	11-11-1997 <b>07-30-1997</b> 00049 10.1	BECHTEL NATIONAL D. TEDALDI VARIOUS AGENCIES	RESPONSES TO RAB SUBCOMMITTEE AND CITY OF TUSTIN COMMENTS ON THE MCAS TUSTIN OPERABLE UNIT 1 FEASIBILITY STUDY REPORT	ADMIN RECORD	BRAC FEASIBILITY STU. GROUNDWATER RAB REMEDIAL INVES TCE TPH	00003 00012 0013S OU 1 OU 2 ST 72	SOUTHWEST DIVISION
M62535 / 001467  RESP N68711-92-D-4670 0008	11-11-1997 <b>07-30-1997</b> 00049 10.1	BECHTEL NATIONAL D. TEDALDI VARIOUS AGENCIES	RESPONSES TO RAB SUBCOMMITTEE AND CITY OF TUSTIN COMMENTS ON THE MCAS TUSTIN IRP-13S INSERTS TO THE REMEDIAL INVESTIGATION REPORT	ADMIN RECORD	COMMENTS GROUNDWATER RAB REMEDIAL INVES SOIL	00003 00016 0013E 0013S 0013W OU 1 OU 2 ST 72	SOUTHWEST DIVISION
M62535 / 001457  LTR NONE 0001	09-29-1997 <b>08-06-1997</b> 00049 5.4	BECHTEL NATIONAL D. TEDALDI DISTRIBUTION	TRANSMITTAL OF DRAFT RECORD OF DECISION FOR OPERABLE UNIT 3	ADMIN RECORD	BRAC MOFFETT TRENC OPERABLE UNIT ROD	OU 3	SOUTHWEST DIVISION
M62535 / 001453  LTR NONE 0004	09-24-1997 <b>08-07-1997</b> 00049 10.1	EPA SAN FRANCISCO N. MOUTOUX VARIOUS AGENCIES	COMMENTS TO DRAFT RECORD OF DECISION, OPERABLE UNIT 3 MOFFETT TRENCHES AND CRASH CREW BURN PIT'S SITE	ADMIN RECORD	ARAR CRASH BURN PIT MOFFETT TRENC	OU 3	SOUTHWEST DIVISION

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M62535 / 001552  RESP N68711-92-D-4670 0011	02-10-1998 <b>08-20-1997</b> 00049 10.1	BECHTEL NATIONAL D. TEDALDI VARIOUS AGENCIES	REVISED RESPONSES TO RAB SUBCOMMITTEE AND CITY OF TUSTIN COMMENTS ON OPERABLE UNIT 1 FEASIBILITY STUDY REPORT	ADMIN RECORD	COMMENTS FEASIBILITY STU. REMEDIAL INVES	00003 00012 0013S OU 1 OU 2 ST 72	SOUTHWEST DIVISION
M62535 / 001575  RESP N68711-92-D-4670 0009	02-24-1998 <b>08-20-1997</b> 00049 10.1	BECHTEL NATIONAL D. TEDALDI VARIOUS AGENCIES	REVISED RESPONSES TO RAB SUBCOMMITTEE AND CITY OF TUSTIN COMMENTS ON THE MCAS TUSTIN IRP- 13S INSERTS TO THE REMEDIAL INVESTIGATION	ADMIN RECORD	COMMENTS IRP RAB REMEDIAL INVES	00003 00016 0013E 0013S 0013W OU 1 ST 72	SOUTHWEST DIVISION
M62535 / 001507  MISC NONE 0075	12-03-1997 <b>08-21-1997</b> NONE 10.4	BECHTEL NATIONAL  VARIOUS AGENCIES	AUGUST 21, 1997 RESTORATION ADVISORY BOARD PRE-MEETING AND POST-MEETING MATERIAL (NOTICE, AGENDA AND ATTACHMENTS)	ADMIN RECORD	CLEANUP COMMENTS MOFFETT TRENC PUBLIC PART. RAB	00003 00012 00016 0013E 0013S 0013W OU 1 OU 2 OU 3 ST 72	SOUTHWEST DIVISION
M62535 / 001473  NEWS NONE 0001	11-12-1997 <b>08-28-1997</b> NONE 10.3	TUSTIN NEWS  PUBLIC	NEWSPAPER ARTICLE "SHINGLETON ELECTED PRESIDENT OF NATIONAL BASE REUSE GROUP"	ADMIN RECORD	CLOSURE REUSE		SOUTHWEST DIVISION
M62535 / 001461  RESP NONE 0016	11-11-1997 <b>09-04-1997</b> 00141 10.1	VARIOUS AGENCIES  SOUTHWEST DIVISION T. MARTIN	CITY OF TUSTIN RESPONSE TO COMMENTS ON THE DRAFT FEASIBILITY STUDY REPORT FOR OPERABLE UNIT 1	ADMIN RECORD	COMMENTS FEASIBILITY STU. MOFFETT TRENC OPERABLE UNIT RAB REMEDIAL INVES	IRP 12 IRP 3 OU 1 OU 3	SOUTHWEST DIVISION

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M62535 / 001474  NEWS NONE 0001	11-12-1997 <b>09-10-1997</b> NONE 10.3	O.C. REGISTER  PUBLIC	NEWSPAPER ARTICLE "COLONEL UP TO TASK OF CONVERTING BASES"	ADMIN RECORD	CLOSURE MEDIA PUBLIC PART. REUSE		SOUTHWEST DIVISION
M62535 / 001475  NEWS NONE 0001	11-12-1997 <b>09-18-1997</b> NONE 10.3	TUSTIN NEWS  PUBLIC	NEWSPAPER ARTICLE "CHANGE OF COMMAND AND DESIGNATION" (DOWNGRADE FROM AIR STATION TO AIR FACILITY)	ADMIN RECORD	CLOSURE MEDIA PUBLIC PART.		SOUTHWEST DIVISION
M62535 / 001454  MM NONE 0008	09-29-1997 <b>09-19-1997</b> 00633 10.4	BECHTEL NATIONAL D. TEDALDI DISTRIBUTION	RESTORATION ADVISORY BOARD MEETING MINUTES OF AUGUST 21, 1997	ADMIN RECORD	CLEANUP FEASIBILITY STU. MOFFETT TRENC MTG MINS PUBLIC PART. RAB RISK	00003 OU 1 OU 3	SOUTHWEST DIVISION
M62535 / 001479  FACT N68711-92-D-4670 0004	11-12-1997 <b>10-01-1997</b> 00063 10.6	MCAS TUSTIN D. CHANDLER PUBLIC	FINAL FACT SHEET # 8 (#6 UNDER CLEAN II) "GROUNDWATER CONTAMINATION AND CLEANUP - AN OVERVIEW", DATED OCTOBER 1997	ADMIN RECORD	FACT SHEET FEASIBILITY STU. GROUNDWATER PUBLIC PART. RISK SOIL TCE	00003 00005 00012 0013S	SOUTHWEST DIVISION
M62535 / 001442  LTR NONE 0005	09-24-1997 <b>11-01-1997</b> 00049 3.6	CITY OF TUSTIN W. A. HUSTON VARIOUS AGENCIES	OPERABLE UNIT 3 REMEDIATION	ADMIN RECORD	MOFFETT TRENC OPERABLE UNIT RAB REMEDIAL INVES REUSE RISK	OU 3	SOUTHWEST DIVISION



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M62535 / 001511  RESP N68711-92-D-4670 0006	12-15-1997 <b>11-06-1997</b> 00049 10.1	BECHTEL NATIONAL D. TEDALDI SOUTHWEST DIVISION R. SELBY	RESPONSE TO COMMENTS RECORD OF DECISION FOR OPERABLE UNIT 3	ADMIN RECORD	GROUNDWATER ROD	OU 3	SOUTHWEST DIVISION
M62535 / 001510  RESP N68711-92-D-4670 0010	12-15-1997 <b>11-10-1997</b> 00141 10.1	BECHTEL NATIONAL D. TEDALDI SOUTHWEST DIVISION R. SELBY	DRAFT FEASIBILITY STUDY REPORT FOR OPERABLE UNIT 1 RESPONSE TO COMMENTS (REF: AR #1702 12/18/98 DRAFT FEASIBILITY STUDY REPORT; AR #1720 3/2/99 DRAFT FEASIBILITY STUDY REPORT; AR #1731 RESPONSE TO COMMENTS ON 3/2/99 DRAFT FEASIBILITY STUDY REPORT)	ADMIN RECORD	COMMENTS LEAD RAB ROD TOE	00003 00012 OU 1	SOUTHWEST DIVISION

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M62535 / 001505 CTO-0049/1165 RPT N68711-92-D-4670 1500	12-30-1997 <b>11-14-1997</b> 00049 03.4	BECHTEL NATIONAL M. DALRYMPLE SOUTHWEST DIVISION	DRAFT FINAL REMEDIAL INVESTIGATION REPORT FOR OPERABLE UNITS 1 AND 2 VOLUMES 1 THROUGH 5 (ACCEPTED AS FINAL PER 2/18/98 NOTIFICATION TO REGULATORS - REFER TO AR #'S 1593 & 1627) (INCLUDES REPLACEMENT PAGES OF 11/97 FOR VOL. 3, DCN# CTO- 0049/1241)	ADMIN RECORD	AREA OF CONCE CANCER GROUNDWATER IRP REMEDIAL INVES SOIL TCE TECHNICAL DOC. VOC	00001 00003 00005 00006 00007 00008 00009 00011 00012 00013 00016 0007N 0007S 0013E 0013S 0013W AST 169 AST 170 DSS 01 DSS 02 MDA 02 MDA 04 MMS 04 MMS 05 MWA 18 OU 1 OU 2 OU 3 ST 67 ST 72 TOW 18 A UST 29 A UST 90	SOUTHWEST DIVISION

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M62535 / 001578  FAX NONE 0005	02-26-1998 <b>11-21-1997</b> 00155 10.1	MCAS TUSTIN D. CHANDLER BECHTEL NATIONAL J. GOUGE	COMMENTS ON FACT SHEET # 9 DRAFT	NON-ADMIN RECORD	COMMENTS		SOUTHWEST DIVISION
M62535 / 001551  MM N68711-92-D-4670 0035	02-10-1998 <b>12-02-1997</b> 00155 10.4	BECHTEL NATIONAL D. TEDALDI DISTRIBUTION	OCTOBER 23, 1997 RESTORATION ADVISORY BOARD PRE- MEETING AND POST MEETING MATERIALS (PUBLIC NOTICE, AGENDA, MEETING MINUTES)	ADMIN RECORD	FEASIBILITY STU. MOFFETT TRENC RAB	00002 00003 00009 00012 0013W APRON 1 HANGAR 2 OU 1 OU 3 ST 72 UST 133 UST 136 UST 185 UST 23C UST 42 UST 630A	SOUTHWEST DIVISION
M62535 / 001579  COMM NONE 0008	02-26-1998 <b>12-10-1997</b> 00155 10.1	DTSC LONG BEACH R. OKUDA MCAS TUSTIN D. CHANDLER	NAVY/AGENCIES COMMENTS ON TUSTIN FACT SHEET # 9 DRAFT	ADMIN RECORD	COMMENTS		SOUTHWEST DIVISION
M62535 / 001580  COMM NONE 0003	02-26-1998 <b>12-15-1997</b> 00155 10.1	DTSC LONG BEACH R. OKUDA MCAS TUSTIN D. CHANDLER	DTSC COMMENTS ON THE OCTOBER 23, 1997 RAB MEETING MINUTES	ADMIN RECORD	COMMENTS RAB		SOUTHWEST DIVISION

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M62535 / 001581  RESP N68711-92-D-4670 0009	02-26-1998 <b>12-18-1997</b> 00141 10.1	BECHTEL NATIONAL D. TEDALDI VARIOUS AGENCIES	DAFT FEASIBILITY STUDY REPORT FOR OPERABLE UNIT 1 - RESPONSE TO COMMENTS FROM THE CITY OF TUSTIN	ADMIN RECORD	COMMENTS FEASIBILITY STU. LEAD REMEDIAL INVES	00003 00012 OU 1	SOUTHWEST DIVISION
M62535 / 001582  RESP N68711-92-D-4670 0005	02-26-1998 <b>12-22-1997</b> 00049 10.1	BECHTEL NATIONAL D. TEDALDI VARIOUS AGENCIES	RESPONSE TO USEPA COMMENTS REGARDING RECORD OF DECISION FOR OPERABLE UNIT 3	ADMIN RECORD	ARAR COMMENTS MOFFETT TRENC ROD	OU 3	SOUTHWEST DIVISION
M62535 / 001553  FACT N68711-92-D-4670 0004	02-10-1998 <b>01-01-1998</b> 00155 10.6	BECHTEL NATIONAL D. TEDALDI PUBLIC	FINAL FACT SHEET #9 (#7 UNDER CLEAN II) "IDENTIFYING AND SELECTING TECHNOLOGIES AND ALTERNATIVES FOR GROUNDWATER TREATMENT"	ADMIN RECORD	FACT SHEET FEASIBILITY STU. GROUNDWATER IRP REMEDIAL INVES	00003 00012 0013S OU 1	SOUTHWEST DIVISION
M62535 / 001762  NEWS NONE 0001	07-01-1999 <b>01-07-1998</b> 00155 00.0	NEWSPAPERS	THE TUSTIN NEWS-JAN 07, 1998 "BASE CLOSURE A HOT TOPIC"	ADMIN RECORD			SOUTHWEST DIVISION
M62535 / 001763  NEWS NONE 0001	07-01-1999 <b>01-07-1998</b> 00155 00.0	NEWSPAPERS	THE TUSTIN NEWS-JAN 07, 1998	ADMIN RECORD			SOUTHWEST DIVISION

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M62535 / 001631  MM N68711-92-D-4670 0070	05-14-1998 <b>01-22-1998</b> 00155 10.4	BECHTEL NATIONAL D. TEDALDI DISTRIBUTION	JANUARY 22, 1998 RESTORATION ADVISORY BOARD PRE- AND POST- MEETING MATERIALS (PUBLIC NOTICE, AGENDA, MEETING MINUTES, HANDOUTS)	ADMIN RECORD	IRP MOFF. PUB PART MTG MINS PAH RAB UST	00001 00002 00005 00009 00023 00026 00042 00047 00058 0007S 00135 0013W 00171 00181 00185 00222 0027A 0027B 00300 00530A 0133B AST 169 AST 170 OU 1 OU 2 OU 3	SOUTHWEST DIVISION
M62535 / 001623  NEWS NONE 0002	05-07-1998 <b>02-26-1998</b> NONE 10.3	TUSTIN NEWS  PUBLIC	NEWSPAPER ARTICLE "DEADLINE NEARS FOR PUBLIC TO GIVE INPUT ON BASE PLAN"	ADMIN RECORD	EIR MEDIA PUBLIC COMMEN		SOUTHWEST DIVISION

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M62535 / 001622  NEWS NONE 0002	05-07-1998 <b>03-12-1998</b> NONE 10.3	TUSTIN NEWS  PUBLIC	NEWSPAPER ARTICLE " BOARD WILL EYE BASE CLEANUP TONIGHT"	ADMIN RECORD	AREA OF CONCE CLEANUP MOFF. PUB PART MOFFETT TRENC RAB		SOUTHWEST DIVISION

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M62535 / 001632	05-14-1998 <b>03-12-1998</b>	BECHTEL NATIONAL	MARCH 12, 1998 RESTORATION ADVISORY BOARD PRE- AND POST -	ADMIN RECORD	BCP	00002	SOUTHWEST DIVISION
MM	00155	D. TEDALDI	MEETING MATERIALS (PUBLIC NOTICE,		IRP	00003	
N68711-92-D-4670	10.4	DISTRIBUTION	AGENDA, MEETING MINUTES,		MTG MINS	00005	
0080			HANDOUTS)		RAB	00006	
					UST	00008	
						00009	
						00011	
						00012	
						00042	
						00047	
						0007S	
						0013E	
						0013S	
						0013W	
						00185	
						00222	
						0023C	
						0027A	
						0027B	
						00300	
						00530A	
						AST 169	
						AST 170	
						HANGAR 1	
						HANGAR 2	
						OU 1	
						OU 2	
						OU 3	
						PARCEL 11A	
						PARCEL 33	
						PARCEL 38	
						PARCEL 39	
						PARCEL 41A	
						PARCEL 41B	
						PARCEL 6	

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						PARCEL 8 B PARCEL 8 C	
M62535 / 001619  NEWS NONE 0002	04-03-1998 <b>03-19-1998</b> NONE 10.3	TUSTIN NEWS  PUBLIC	NEWSPAPER ARTICLE "BASE PLAN AND BUDGET ARE AT TOP OF CITY GOALS LIST"	ADMIN RECORD	MEDIA REUSE		SOUTHWEST DIVISION
M62535 / 001620  NEWS NONE 0001	04-30-1998 <b>03-19-1998</b> NONE 10.3	TUSTIN NEWS  PUBLIC	NEWSPAPER ARTICLE "BOARD REVIEWS BASE CLEANUP"	ADMIN RECORD	CLOSURE MEDIA RAB		SOUTHWEST DIVISION



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M62535 / 001616	04-30-1998	BECHTEL	DRAFT RECORD OF DECISION NO	ADMIN RECORD	AREA OF CONCE	00002	SOUTHWEST
	<b>04-01-1998</b>	NATIONAL	ACTION SITES AND AREAS OF CONCERN		IRP	00005	DIVISION
RPT	00141				ROD	00006	
N68711-92-D-4670	05.1	SOUTHWEST				00008	
0150		DIVISION				00011	
						00016	
						0013E	
						0013W	
						AD 04	
						AS 06	
						AS 08	
						AST 02	
						AST 04	
						DSS 01	
						DSS 02	
						MDA 02	
						MDA 04	
						MDA 07	
						MMS 01	
						MMS 04	
						MMS 05	
						MWA 03	
						OU 1	
						ST 67	

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M62535 / 001624  PLAN N68711-92-D-4670 0016	05-07-1998 <b>04-01-1998</b> 00155 04.3	BECHTEL NATIONAL D. TEDALDI SOUTHWEST DIVISION	DRAFT - PROPOSED PLAN FOR NO FURTHER ACTION AT TWENTY-THREE LOCATIONS (REFERENCE AR #805 RESPONSE TO COMMENTS ON PP/NFA)	ADMIN RECORD	AREA OF CONCE CLEANUP IRP	00002 00005 00006 00008 00011 00016 0005N 0005S 0013E 0013W AD 04 AS 06 AS 08 AST 02 AST 04 DSS 01 DSS 02 MDA 02 MDA 04 MDA 07 MMS 01 MMS 04 MMS 05 MWA 03 ST 67	SOUTHWEST DIVISION
M62535 / 001621  NEWS NONE 0002	04-30-1998 <b>04-09-1998</b> NONE 10.3	TUSTIN NEWS  PUBLIC	NEWSPAPER ARTICLE "BATTLING BUREAUCRATIC BORDER WARS"	ADMIN RECORD	MEDIA REUSE		SOUTHWEST DIVISION

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M62535 / 001618  NEWS NONE 0002	04-30-1998 <b>04-16-1998</b> NONE 10.3	TUSTIN NEWS  PUBLIC	NEWSPAPER ARTICLE "TUSTIN NAMED BUSINESS TOP SPOT IN OC"	ADMIN RECORD	MEDIA		SOUTHWEST DIVISION
M652535 / 001760  NEWS NONE 0002	07-01-1999 <b>04-23-1998</b> 00155 00.0	NEWSPAPERS	THE TUSTIN NEWS-APR 23, 1998 "CHRONOLOGY OF TUSTIN'S PROGRESS"	ADMIN RECORD			SOUTHWEST DIVISION
M652535 / 001761  NEWS NONE 0003	07-01-1999 <b>04-23-1998</b> 00155 00.0	NEWSPAPERS	THE TUSTIN NEWS-APR 23, 1998 "BLUEPRINT FOR THE FUTURE: PREDICTING TUSTIN'S GROWTH" PROJECTING TUSTIN IN THE YEAR 2020	ADMIN RECORD			SOUTHWEST DIVISION
M652535 / 001674  MM N68711-92-D-4670 0100	09-15-1998 <b>05-14-1998</b> 00155 10.4	BECHTEL NATIONAL D. TEDALDI VARIOUS AGENCIES	MAY 14, 1998 RESTORATION ADVISORY BOARD PRE AND POST MEETING MATERIALS (PUBLIC NOTICE, AGENDA, MEETING MINUTES, HANDOUTS)	ADMIN RECORD	MOFF. PUB PART MTG MINS RAB	00001 00003 00009 00012 0013S APRON 1 APRON 2 APRON 3 APRON 4 OU 1 OU 3	SOUTHWEST DIVISION
M652535 / 001672  MISC NONE 0006	07-15-1998 <b>06-17-1998</b> NONE 10.0	BEC OFFICE  RAB MEMBERS	RESTORATION ADVISORY BOARD TOUR PACKET INCLUDES HANDOUT, MAP, AND FACT SHEET NO. 6	ADMIN RECORD	MOFF. PUB PART PUBLIC PART RAB	00001 00003 BLDG. 29 A	SOUTHWEST DIVISION

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M62535 / 001687  MM N68711-92-D-4670 0053	09-29-1998 <b>07-09-1998</b> 00155 10.4	BECHTEL NATIONAL D. TEDALDI VARIOUS AGENCIES	JULY 9, 1998 RESTORATION ADVISORY BOARD PRE AND POST MEETING PACKET (PUBLIC NOTICE, AGENDA, MEETING MINUTES AND ATTACHMENTS)	ADMIN RECORD	MTG MINS RAB	00003 00012 0013S APRON 1 AST 169 AST 170 HANGER 2 OU 1 OU 3 UST 222 UST 27 A UST 27 B UST 42 UST 47 A	SOUTHWEST DIVISION
M62535 / 001703  MM N68711-92-D-4670 0058	12-31-1998 <b>08-20-1998</b> 00155 10.4	BECHTEL NATIONAL D. TEDALDI VARIOUS AGENCIES	SEPTEMBER 10, 1998 RESTORATION ADVISORY BOARD PRE AND POST MEETING MATERIALS INCLUDING MEETING NOTICE, AGENDA, MEETING MINUTES, AND ATTACHMENTS	ADMIN RECORD	IRP MTG MINS RAB	00001 00002 00003 00009 0013S 0013W APRON 1 AST 169 AST 170 AST 194 A AST 194 B BLDG. 23 A BLDG. 567 HANGAR 1 PARCEL 9 UST 105 UST 222	SOUTHWEST DIVISION

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M62535 / 001712  RESP N68711-92-D-4670 0005	01-13-1999 <b>10-05-1998</b> 00155 10.1	BECHTEL NATIONAL D. TEDALDI VARIOUS AGENCIES	RESPONSE TO INITIAL BCT COMMENTS ON THE DRAFT NO FURTHER ACTION PROPOSED PLAN (REFERENCE DOCUMENT NUMBER 001624)	ADMIN RECORD	BCT COMMENTS	00002 0013W	SOUTHWEST DIVISION
M62535 / 000224 NONE MISC NONE 0004	12-16-1999 <b>10-16-1998</b> NONE 10.1	SOUTHWEST DIVISION J. PAYNE RWQCB RIVERSIDE P. HANNON	RESPONSE TO BCT COMMENTS DATED AUGUST 24, 1998 ON THE NO FURTHER ACTION PROPOSED PLAN FOR 23 LOCATIONS	ADMIN RECORD	COMMENTS NFA RESPONSE SOIL	13W 2 MWA 03	SOUTHWEST DIVISION
M62535 / 000337 CTO-0155/0321 MM N68711-92-D-4670 0019	12-16-1999 <b>11-03-1998</b> 00155 10.4	MCAF TUSTIN RAB  PUBLIC INTEREST	NOVEMBER 12, 1998 RESTORATION ADVISORY BOARD PRE-MEETING MATERIALS - MEETING NOTICE, AGENDA, RAB ROSTER, AND SEPTEMBER 10, 1998 RAB MEETING MINUTES	ADMIN RECORD	GW MTG MINS PUBNOT RAB UST	1 13S 13W 2 3 9B OU 1 OU 3	SOUTHWEST DIVISION
M62535 / 001709  RESP N68711-92-D-4670 0009	01-05-1999 <b>11-17-1998</b> 00141 10.1	BECHTEL NATIONAL D. TEDALDI VARIOUS AGENCIES	RESPONSE TO BCT COMMENTS ON DRAFT RECORD OF DECISION JUNE 1997 FOR OPERABLE UNIT 3	ADMIN RECORD	BCT COMMENTS MOFFETT TRENC	OU 3 PETERS CAN	SOUTHWEST DIVISION
M62535 / 000353 CTO-0155/0339 MM N68711-92-D-4670 0035	12-16-1999 <b>11-19-1998</b> 00155 10.4	MCAS TUSTIN RAB  RAB MEMBERS	RESTORATION ADVISORY BOARD POST- MEETING MATERIALS FOR SEPTEMBER 10, 1999 RAB MEETING	ADMIN RECORD	GW MTG MINS PRG RAB SOIL UST	1 13S 13W 3 9B OU 1 OU 3	SOUTHWEST DIVISION

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M62535 / 001759  NEWS NONE 0001	07-01-1999 <b>11-19-1998</b> 00155 00.0	NEWSPAPERS	TUSTIN NEWS-NOV 19, 1998 "CONSULTANT HIRED FOR BASE BUSINESS PLAN"	ADMIN RECORD			SOUTHWEST DIVISION
M62535 / 001700  RPT N68711-92-D-4670 0085	12-31-1998 <b>12-01-1998</b> 00141 05.1	BECHTEL NATIONAL D. TEDALDI VARIOUS	DRAFT RECORD OF DECISION OPERABLE UNIT 3 MOFFETT TRENCHES AND CRASH CREW BURN PITS SITE	ADMIN RECORD	CRASH BURN PIT MOFFETT TRENC ROD	00001 OU 1 OU 2 OU 3	SOUTHWEST DIVISION
M62535 / 001755  NEWS NONE 0001	07-01-1999 <b>12-03-1998</b> 00155 00.0	NEWSPAPERS	TUSTIN NEWS-DEC 03, 1998 "AROUND TOWN - SOUTH TUSTIN"	ADMIN RECORD			SOUTHWEST DIVISION
M62535 / 001752  NEWS NONE 0001	07-01-1999 <b>12-10-1998</b> 00155 00.0	NEWSPAPERS	TUSTIN NEWS-DEC 10, 1998 "COUNCIL PAVES WAY FOR HOMELESS SHELTER"	ADMIN RECORD			SOUTHWEST DIVISION
M62535 / 001702  RPT N68711-92-D-4670 1000	12-31-1998 <b>12-18-1998</b> 00141 04.2	BECHTEL NATIONAL T. FENG VARIOUS AGENCIES	REVISED DRAFT FEASIBILITY STUDY REPORT FOR OPERABLE UNIT 1 (REFERENCE AR #1510 RESPONSE TO COMMENTS DRAFT FS REPORT; AR #1720, 3/2/99 DRAFT FEASIBILITY STUDY REPORT; AR #1731, RESPONSE TO COMMENTS ON 3/2/99 DRAFT FEASIBILITY STUDY REPORT)	ADMIN RECORD	FEASIBILITY STU. IRP VOC	00003 00012 0013S MWA 18 OU 1 OU 2 PETERS CAN ST 72	SOUTHWEST DIVISION
M62535 / 001750  NEWS NONE 0001	06-29-1999 <b>12-24-1998</b> 00155 00.0	NEWSPAPERS	THE TUSTIN NEWS-12/24/98 "SOUTH TUSTIN"	ADMIN RECORD			SOUTHWEST DIVISION

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M62535 / 001747  NEWS NONE 0001	06-29-1999 <b>12-31-1998</b> 00155 00.0	NEWSPAPERS	THE TUSTIN NEWS - THURSDAY 12/31/98 "TUSTIN READIES FOR '99"	ADMIN RECORD			SOUTHWEST DIVISION
M62535 / 001748  NEWS NONE 0001	06-29-1999 <b>12-31-1998</b> 00155 00.0	NEWSPAPERS	THE TUSTIN NEWS - THURSDAY 12/31/98 "SOUTH TUSTIN"	ADMIN RECORD			SOUTHWEST DIVISION
M62535 / 001732 CTO-0155/0370 MM N68711-92-D-4670 0020	04-06-1999 <b>01-05-1999</b> 00155 10.4	BECHTEL NATIONAL D. TEDALDI SOUTHWEST DIVISION R. SELBY	JANUARY 14, 1999 RESTORATION ADVISORY BOARD PRE-MEETING MATERIALS - MEETING NOTICE, AGENDA, AND NOVEMBER 12, 1998 MEETING MINUTES WITH CONFIDENTIAL MAILING LIST	ADMIN RECORD CONFIDENTIAL	FEASIBILITY STU. GROUNDWATER PUBLIC ROD	OU 1 OU 3	SOUTHWEST DIVISION
M62535 / 001740 CTO-0155/0398 MM N68711-92-D-4670 0050	04-13-1999 <b>01-28-1999</b> 00155 10.4	BECHTEL NATIONAL D. TEDALDI SOUTHWEST DIVISION R. SELBY	NOVEMBER 12, 1998 RESTORATION ADVISORY BOARD POST MEETING MATERIALS - MEETING MINUTES AND ATTACHMENTS	ADMIN RECORD	MTG MINS PUBLIC RAB	TUSTIN	SOUTHWEST DIVISION
M62535 / 000355 NONE LTR NONE 0005	12-16-1999 <b>02-01-1999</b> NONE 04.5	SOUTHWEST DIVISION W. SANDZA DTSC CYPRESS J. SCANDURA	PROPOSAL TO FORM A JOINT FORUM FOR ISSUE RESOLUTION DUE TO DTSC WORK SLOWDOWN AT SOUTHERN CALIFORNIA BASES, FOR NFA PROPOSED PLAN AT MISCELLANEOUS DISPOSAL AREA 2	ADMIN RECORD	NFA PROPOSED PLAN		SOUTHWEST DIVISION
M62535 / 001725  RESP N68711-92-D-4670 0010	03-09-1999 <b>02-04-1999</b> 00141 03.4	BECHTEL NATIONAL D. TEDALDI SOUTHWEST DIVISION R. SELBY	FINAL RESPONSE TO BCT COMMENTS ON DRAFT RI/FS REPORTS FOR OPERABLE UNIT #3	ADMIN RECORD	BCT FEASIBILITY STU. REMEDIAL INVES RESP	MCAF UNIT #3	SOUTHWEST DIVISION

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M62535 / 001739 CTO-0155/0408 FACT N68711-92-D-4670 0025	04-13-1999 <b>02-10-1999</b> 00155 10.6	BECHTEL NATIONAL  VARIOUS AGENCIES	DRAFT - FACT SHEET - OU 3, RECENT DEVELOPMENTS AT MOFFETT TRENCHES AND CRASH CREW BURN PITS	ADMIN RECORD	CRASH BURN PIT FACT SHEET MOFFETT TRENC RAB	OU 3	SOUTHWEST DIVISION
M62535 / 001733 NONE RPT N68711-92-D-4670 0150	04-06-1999 <b>02-24-1999</b> 00141 05.0	BECHTEL NATIONAL D. TEDALDI SOUTHWEST DIVISION R. SELBY	REVISED DRAFT - RECORD OF DECISION/REMEDIAL ACTION PLAN OPERABLE UNIT 3 MOFFETT TRENCHES AND CRASH CREW BURN PIT SITE	ADMIN RECORD	CRASH BURN PIT MOFFETT TRENC ROD	OU 3	SOUTHWEST DIVISION
M62535 / 001744 CTO-0155/0454 MISC N68711-92-D-4670 0020	06-29-1999 <b>03-01-1999</b> 00155 10.6	BECHTEL NATIONAL D. TEDALDI VARIOUS AGENCIES	FACT SHEET - RECENT DEVELOPMENTS AT MOFFETT TRENCHES AND CRASH CREW BURN PITS	ADMIN RECORD	CRASH BURN PIT FACT SHEET MOFFETT TRENC PUBLIC	OU 3	SOUTHWEST DIVISION
M62535 / 001720 CTO-0141/0403 RPT N68711-92-D-4670 0250	03-09-1999 <b>03-02-1999</b> 00141 04.2	BECHTEL NATIONAL T. FENG SOUTHWEST DIVISION	REVISED DRAFT FEASIBILITY STUDY REPORT FOR OPERABLE UNIT 1 (REFERENCE AR #1510, RESPONSE TO COMMENTS ON DRAFT FS REPORT; AR #1702, 12/18/98 DRAFT FS STUDY REPORT; AR #1731 RESPONSE TO COMMENTS ON 3/2/99 DRAFT FS REPORT)	ADMIN RECORD	ADMIN RECORD BRAC FEASIBILITY STU.	OU 1	SOUTHWEST DIVISION
M62535 / 001743  MM N68711-92-D-4670 0020	06-24-1999 <b>03-25-1999</b> 00155 10.4	BECHTEL NATIONAL D. TEDALDI VARIOUS AGENCIES	APRIL 8, 1999 RESTORATION ADVISORY BOARD PRE-MEETING MATERIALS - MEETING NOTICE, AGENDA, RAB ROSTER, AND JANUARY 14, 1999 MEETING MINUTES	ADMIN RECORD INFO REPOSITORY	GW MTG MINS RAB	1 12 13S 3 OU 1 OU 3	SOUTHWEST DIVISION
M62535 / 001745  MM N68711-92-D-4670 0010	06-29-1999 <b>03-31-1999</b> 00170 10.4	BECHTEL NATIONAL D. TEDALDI SOUTHWEST DIVISION R. SELBY	BCT MEETING MINUTES - REVIEW RESULTS FROM MDA-02 FIELD INVESTIGATION AND DETERMINE TO PROCEED WITH THE PREPARATION OF NFA RAP/PP AND ROD DTD MARCH 23, 1999	ADMIN RECORD	BCT NO FURTH. ACTI ROD	MDA 02	SOUTHWEST DIVISION



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M62535 / 001746  MM N68711-92-D-4670 0040	06-29-1999 <b>04-13-1999</b> 00155 10.4	BECHTEL NATIONAL D. TEDALDI SOUTHWEST DIVISION R. SELBY	JANUARY 14, 1999 RESTORATION ADVISORY BOARD POST-MEETING MATERIALS - MEETING MINUTES & ATTACHMENTS (MAILING LIST IS CONFIDENTIAL)	ADMIN RECORD CONFIDENTIAL	CRASH BURN PIT MOFFETT TRENC PUBLIC RAB	OU 1 OU 3	SOUTHWEST DIVISION
M62535 / 001765  MM N68711-92-D-4670 0015	07-01-1999 <b>05-27-1999</b> 00155 10.3	BECHTEL NATIONAL D. TEDALDI SOUTHWEST DIVISION R. SELBY	JUNE 10, 1999 RESTORATION ADVISORY BOARD PRE-MEETING MATERIALS - MEETING NOTICE, AGENDA, AND APRIL 8, 1999 DRAFT MEETING MINUTES	ADMIN RECORD	PUBLIC RAB	OU 1	SOUTHWEST DIVISION
M62535 / 001775 CTO-0155/0524 MM N68711-92-D-4670 0075	08-31-1999 <b>06-29-1999</b> 00155 10.4	BECHTEL NATIONAL D. TEDALDI SOUTHWEST DIVISION R. SELBY	APRIL 8, 1999 RESTORATION ADVISORY BOARD MEETING MINUTES, SIGN-IN SHEETS, RAB ROSTER, AND HANDOUTS	ADMIN RECORD	MOFFETT TRENC PUBLIC RAB ROD	OU 3	SOUTHWEST DIVISION

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M62535 / 001801 CTO-0155/0498 RPT N68711-92-D-4670 0033	04-19-2000 <b>07-01-1999</b> 00155	BECHTEL NATIONAL INC D. TEDALDI NAVFAC - SOUTHWEST DIVISION R. SELBY	REMEDIAL ACTION PLAN/PROPOSED PLAN FOR NO FURTHER ACTION AT TWENTY THREE IRP SITES AND AREAS OF CONCERN (INCLUDES RESPONSE TO COMMENTS OF THE USEPA, DTSC, AND SARWQCB)	ADMIN RECORD	AOC ARAR AST BRAC BTEX COPC DCE GW IRP METALS PAH PCB PCE PESTICIDES PRG RCRA RFA RI ROD SOIL SVOC TCE TPH TRPH VOC WATER	11 13E 13W 16 2 5N 5S 6 8 AD 04 AST 02 AST 04 BLDG 161 BLDG 19 BLDG 262 BLDG 263 BLDG 28 BLDG 71A BLDG 71G BLDG 71H BLDG 71I DSS 01 DSS 02 MDA 02 MDA 04 MDA 07 MMS 01 MMS 04 MMS 05 MWA 03 OU 1 OU 2 ST 67	SOUTHWEST DIVISION

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M62535 / 001772 CTO-0141/0505 MM N68711-92-D-4670 0024	08-31-1999 <b>07-13-1999</b> 00141 10.4	BECHTEL NATIONAL T. HEIRONIMUS	BCT MEETING MINUTES FOR JUNE 10, 1999 - REVISED DRAFT OU-3 ROD, REVISED DRAFT OU-1 FS, DRAFT VEE PILOT TEST TECH MEMO, SCHEDULE OF DELIVERABLES	ADMIN RECORD	FEASIBILITY STU. MOFFETT TRENC PUBLIC ROD	OU 1 OU 3	SOUTHWEST DIVISION
M62535 / 001776 CTO-0155/0561 MM N68711-92-D-4670 0021	08-31-1999 <b>07-29-1999</b> 00155 10.4	BECHTEL NATIONAL T. HEIRONIMUS SOUTHWEST DIVISION R. SELBY	AUGUST 12, 1999 RESTORATION ADVISORY BOARD MEETING MAILER - MEETING NOTICE, AGENDA, JUNE 10, 1999 RAB MEETING MINUTES, RAB ROSTER, AND RAB SIGN-IN SHEETS	ADMIN RECORD	MTG MINS PUBLIC RAB		SOUTHWEST DIVISION
M62535 / 001774 CTO-0141/0524 MM N68711-92-D-4670 0007	08-31-1999 <b>08-02-1999</b> 00141 10.4	BECHTEL NATIONAL T. HEIRONIMUS SOUTHWEST DIVISION R. SELBY	BCT MEETING MINUTES FOR JULY 13, 1999 - REVISED DRAFT OU-1 FEASIBILITY STUDY, DRAFT NO FURTHER ACTION REMEDIAL ACTION PLAN/PROPOSED PLAN	ADMIN RECORD	BCT FEASIBILITY STU. MTG MINS NO FURTH. ACTI PUBLIC	OU 1	SOUTHWEST DIVISION
M62535 / 000394 CTO-0141/0554 MM N68711-92-D-4670 0012	12-16-1999 <b>10-06-1999</b> 00141 01.1	BECHTEL NATIONAL INC J. VALENZIA VARIOUS AGENCIES	MINUTES OF AUGUST 12, 1999 BCT MEETING - NFA PROPOSED PLAN; RAC PROJECT OVERVIEW; SCHEDULE OF DELIVERABLES	ADMIN RECORD INFO REPOSITORY	BCT GW MTG MINS NFA	5 9	SOUTHWEST DIVISION
M62535 / 000440 CTO-0187/0046 MM N68711-92-D-4670 0015	12-16-1999 <b>10-06-1999</b> 00187 01.1	BECHTEL NATIONAL INC P. BROOKS VARIOUS AGENCIES	MINUTES OF SEPTEMBER 23, 1999 BCT MEETING - OU-1 FS; OU-3 LANDFILL GAS EVALUATION; SITE MANAGEMENT PLAN; NFA PP; MTBE WORK SCHEDULE OF DELIVERABLES	ADMIN RECORD	BCT FS MTG MINS		SOUTHWEST DIVISION
M62535 / 000513 CTO-0155/0611 MM N68711-92-D-4670 0010	12-16-1999 <b>10-06-1999</b> 00155 10.4	MCAF TUSTIN RAB  RAB MEMBERS	OCTOBER 14, 1999 RESTORATION ADVISORY BOARD PRE-MEETING MATERIALS -PUBLIC NOTICE, AGENDA, VARIOUS HANDOUTS AND SIGN-IN SHEETS (GUEST SIGN-IN SHEET CONFIDENTIAL)	ADMIN RECORD CONFIDENTIAL INFO REPOSITORY	FOSL FOST MTG MINS PUBNOT RAB	OU 1 OU 3	SOUTHWEST DIVISION

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M62535 / 000378 CTO-0155/0628 MM N68711-92-D-4670 0045	12-16-1999 <b>10-25-1999</b> 00155 10.4	MCAF TUSTIN RAB RAB MEMBERS	MINUTES OF JUNE 10, 1999 RESTORATION ADVISORY BOARD MEETING WITH HANDOUTS, RAB ROSTER AND SIGN-IN SHEETS (SIGN-IN SHEETS FOR NON-RAB MEMBERS ARE CONFIDENTIAL)	ADMIN RECORD INFO REPOSITORY	AOC MTG MINS RAB UST	OU 1 OU 3	SOUTHWEST DIVISION
M62535 / 000385 CTO-0155/0629 MM N68711-92-D-4670 0038	12-16-1999 <b>10-25-1999</b> 00155 10.4	MCAF TUSTIN RAB RAB MEMBERS	MINUTES OF AUGUST 12, 1999 RESTORATION ADVISORY BOARD MEETING WITH HANDOUTS, RAB ROSTER AND SIGN-IN SHEETS (GUEST SIGN-IN SHEET IS CONFIDENTIAL)	ADMIN RECORD INFO REPOSITORY	AOC FOSL FOST IRP MTG MINS RAB UST	1 11 13E 13S 13W 16 2 5 6 8 9A 9B	SOUTHWEST DIVISION
M62535 / 000805 NONE MISC N68711-92-D-4670 0006	12-17-1999 <b>12-06-1999</b> 00155 10.1	SOUTHWEST DIVISION VARIOUS AGENCIES	RESPONSE TO COMMENTS ON DRAFT REMEDIAL ACTION PLAN/PROPOSED PLAN FOR NO FURTHER ACTION AT TWENTY-THREE IRP SITES AND AREAS OF CONCERN (REFERENCE AR #1624 DRAFT NO FURTHER ACTION PROPOSED PLAN)	ADMIN RECORD INFO REPOSITORY	AOC COMMENTS NFA RESPONSE	13E 2 9A 9B AD 04 AS 06 AS 08 AST 02 AST 04 MDA 04 MDA 07 MMS 01 MWA 03 OU 2	SOUTHWEST DIVISION

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M62535 / 001806 CTO-0187/0083 MM N68711-92-D-4670 0100	04-19-2000 <b>12-09-1999</b> 00187	BECHTEL NATIONAL INC  NAVFAC - SOUTHWEST DIVISION R. SELBY	BRAC CLEANUP TEAM MEETING MINUTES FOR DECEMBER 9, 1999 - SITE MANAGEMENT PLAN, OU-1 FS, ADDENDUM TO SITES 9A/9B ACTION MEMO, OU-2 NFA PROPOSED PLAN, OU-3 UPDATE, OU-4 UPDATE, ST-7/8 CLOSURE REPORT, RAC UPDATE, MTBE UPDATE, & SCHEDULE OF DELIVERABLES	ADMIN RECORD	AOC ARAR BCP BRAC EE/CA FS GW METALS MTBE PAH PESTICIDES RFA RI ROD SOIL SVOC TCP TPH VOC	11 13W 16 2 5 6 8 9 MWA 18 OU 1 OU 2 OU 3 OU 4 ST 18B	SOUTHWEST DIVISION
M62535 / 001790 NONE LTR NONE 0019	04-18-2000 <b>12-21-1999</b> NONE	NAVFAC - SOUTHWEST DIVISION D. SAKAMOTO DTSC - CYPRESS CA J. SCANDURA	LETTER REGARDING LAND USE COVENANT AGREEMENTS AND RECORDS OF DECISION (RODS)	ADMIN RECORD INFO REPOSITORY	ARAR BRAC COVENANT FOST LAND ROD	OU 3	SOUTHWEST DIVISION

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M62535 / 001792 NONE MISC NONE 0001	04-18-2000 <b>12-30-1999</b> NONE	LA TIMES  NAVFAC - SOUTHWEST DIVISION	PUBLIC NOTICE REGARDING THE PROPOSED PLAN/DRAFT REMEDIAL ACTION PLAN FOR NO FURTHER ACTION - THREE IRP SITES AND NINE AREAS OF CONCERN; PUBLIC REVIEW AND COMMENT PERIOD 1/2/00 THROUGH 1/31/00; PUBLIC MEETING 1/31/00	ADMIN RECORD	AOC BCT BRAC IRP RAP RI	13E 2 9 AD 04 AS 06 AS 08 AST 02 AST 04 MDA 04 MDA 07 MMS 01 MWA 03 OU 2	SOUTHWEST DIVISION
M62535 / 001794 NONE MISC NONE 0002	04-18-2000 <b>12-30-1999</b> NONE	ORANGE COUNTY REGISTER  VARIOUS PUBLIC	NOTICE OF SIGNING ADDENDUM TO THE NON-TIME-CRITICAL REMOVAL ACTION MEMORANDUM REMOVAL ACTION WORK PLAN FOR OIL DISPOSAL AREA AND HANGAR NO. 1 LINE SHACKS	ADMIN RECORD	IRP PAH SOIL WATER	2 9	SOUTHWEST DIVISION
M62535 / 001795 NONE MISC NONE 0001	04-18-2000 <b>12-30-1999</b> NONE	ORANGE COUNTY REGISTER  VARIOUS PUBLIC	PUBLIC NOTICE FOR PROPOSED PLAN/DRAFT REMEDIAL ACTION PLAN FOR NO FURTHER ACTION THREE IRP SITES AND NINE AREAS OF CONCERN; PUBLIC REVIEW AND COMMENT PERIOD 1/2/00 THROUGH 1/31/00; & PUBLIC MEETING 1/13/00	ADMIN RECORD	AOC BCT BRAC IRP NFA	13E 2 9 AD 04 AS 06 AS 08 AST 02 AST 04 MDA 04 MDA 07 MMS 01 MWA 03	SOUTHWEST DIVISION

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M62535 / 000729 NONE PLAN NONE 0016	12-17-1999 <b>01-01-2000</b> NONE 04.3	MCAF TUSTIN  PUBLIC INTEREST	FINAL - PROPOSED PLAN/PROPOSED DRAFT - REMEDIAL ACTION PLAN (REFERENCE AR #977; DRAFT ROD/RAP & A/R #805 COMMENTS ON DRAFT REMEDIAL ACTION PLAN) INCLUDES MAILING LIST PARTS OF WHICH SHOULD BE CONSIDERED CONFIDENTIAL	ADMIN RECORD CONFIDENTIAL INFO REPOSITORY	METALS PAH PCB PROPOSED PLAN PUBNOT SVOCS TPH VOCS	13E 2 9A 9B AD 04 AS 06 AS 08 AST 02 AST 04 MDA 04 MDA 07 MMS 01 MWA 03	SOUTHWEST DIVISION
M62535 / 001069  LTR NONE 0030	07-24-1996 <b>01-01-2000</b> NONE 00.0	PUBLIC DOD A. CHASIN	RAB MEMBERSHIP STATUS, SEVERAL STATUS FORMS	ADMIN RECORD	PUBLIC PART. RAB		SOUTHWEST DIVISION
M62535 / 001362  LTR NONE 0002	05-07-1997 <b>01-01-2000</b> NONE 10.3	U.S. NAVY  PUBLIC	RESTORATION ADVISORY BOARD (RAB) MEMBERSHIP INFORMATION	ADMIN RECORD	MOFF. PUB PART PUBLIC PART. RAB		SOUTHWEST DIVISION
M62535 / 001476  NEWS NONE 0001	11-12-1997 <b>01-01-2000</b> NONE 10.3	O.C. REGISTER  PUBLIC	NEWSPAPER ARTICLE "MILITARY MANEUVERS - LAND USE: THE CLOSURE OF THE TUSTIN AIR STATION HAS NOT GONE SMOOTHLY AND CITY OFFICIALS BLAME THE ARMED SERVICES"	ADMIN RECORD	CLEANUP CLOSURE MEDIA MOFF. PUB PART MOFFETT TRENC PUBLIC PART. REUSE		SOUTHWEST DIVISION

UIC No. / Rec. No. Doc. Control No. Record Type Contr./Guid. No. Approx. # Pages	Prc. Date Record Date CTO No. EPA Cat. #	Author Affil. Author Recipient Affil. Recipient	Subject	Classification	Keywords	Sites	Location Box No.
M62535 / 001568  NEWS NONE 0001	02-19-1998 <b>01-01-2000</b> NONE 10.3	O.C. REGISTER  PUBLIC	PUBLIC NOTICE REGARDING TOURS OF THE TUSTIN MARINE CORPS AIR STATION	ADMIN RECORD	MEDIA		SOUTHWEST DIVISION
M62535 / 001793 NONE MISC NONE 0002	04-18-2000 <b>01-06-2000</b> NONE	LOS ANGELES TIMES  VARIOUS	PUBLIC NOTICE OF MEETING REGARDING NO FURTHER ACTION RECOMMENDATION PROPOSED PLAN/DRAFT REMEDIAL ACTION PLAN THREE IRP SITES AND NINE AREAS OF CONCERN; RESTORATION ADVISORY BOARD (RAB) MEETING, 1/13/00	ADMIN RECORD	AOC IRP OU RAB RCRA	13E 2 9 AD 04 AS 06 AS 08 AST 02 AST 04 MDA 07 MMS 01 MWA 03 OU 2 OU 4	SOUTHWEST DIVISION
M62535 / 001796 NONE MISC NONE 0002	04-18-2000 <b>01-06-2000</b> NONE	ORANGE COUNTY REGISTER  VARIOUS PUBLIC	PUBLIC NOTICE OF MEETING REGARDING NO FURTHER ACTION RECOMMENDATION PROPOSED PLAN/DRAFT REMEDIAL ACTION PLAN THREE IRP SITES AND NINE AREAS OF CONCERN; RESTORATION ADVISORY BOARD (RAB) MEETING, 1/13/00	ADMIN RECORD	AOC BCT BRAC RAB RCRA	13E 2 9 AD 04 AS 06 AS 08 AST 02 AST 04 MDA 04 MDA 07 MMS 01 MWA 03 OU 2 OU 4	SOUTHWEST DIVISION



UIC No. / Rec. No. Doc. Control No. Record Type Contr./Guid. No. Approx. # Pages	Prc. Date Record Date CTO No. EPA Cat. #	Author Affil. Author Recipient Affil. Recipient	Subject	Classification	Keywords	Sites	Location Box No.
M62535 / 001797 NONE MISC NONE 0001	04-19-2000 <b>01-07-2000</b> NONE	TUSTIN WEEKLY  VARIOUS PUBLIC	PUBLIC NOTICE OF NO FURTHER ACTION RECOMMENDATION PROPOSED PLAN/DRAFT REMEDIAL ACTION PLAN THREE IRP SITES AND NINE AREAS OF CONCERN (AOC); RESTORATION ADVISORY BOARD (RAB) MEETING, (BOTH: 1/13/00)	ADMIN RECORD	AOC BCT BRAC RAB RCRA RI	13E 2 9 AD 04 AS 06 AS 08 AST 02 AST 04 MDA 04 MDA 07 MMS 01 MWA 03	SOUTHWEST DIVISION

UIC No. / Rec. No. Doc. Control No. Record Type Contr./Guid. No. Approx. # Pages	Prc. Date Record Date CTO No. EPA Cat. #	Author Affil. Author Recipient Affil. Recipient	Subject	Classification	Keywords	Sites	Location Box No.
M62535 / 001777 CTO-0200/0017 MM N68711-92-D-4670 0021	04-17-2000 <b>01-13-2000</b> 00200	BECHTEL NATIONAL INC  NAVFAC - SOUTHWEST DIVISION R. SELBY	RESTORATION ADVISORY BOARD (RAB) MEETING, INCLUDES MEETING MINUTES OF 10/14/99, SIGN IN SHEET, AND MAILING LIST PARTS OF WHICH SHOULD BE CONSIDERED CONFIDENTIAL	ADMIN RECORD CONFIDENTIAL INFO REPOSITORY	AOC AST BCP BRAC FOSL FS GW IRP RAB RAP RCRA ROD SOIL TDU UST VOC	1 12 13E 13S 2 3 9 AD 04 AS 06 AS 08 AST 02 AST 04 BLDG 149 BLDG 186 BLDG 250 MDA 04 MDA 07 MMS 01 MWA 03 OU 1 OU 2 OU 3 OU 4 UST 105 UST 222	SOUTHWEST DIVISION
M62535 / 001788 NONE LTR NONE 0001	04-18-2000 <b>01-28-2000</b> NONE	CITY OF TUSTIN D. OGDON BRAC ENVIRONMENTAL COORDINATOR K. FORMAN	COMMENTS ON PROPOSED PLAN / DRAFT REMEDIAL ACTION PLAN AT THREE IRP SITES AND NINE AREAS OF CONCERN	ADMIN RECORD	AOC NFA	2	SOUTHWEST DIVISION

UIC No. / Rec. No. Doc. Control No. Record Type Contr./Guid. No. Approx. # Pages	Prc. Date Record Date CTO No. EPA Cat. #	Author Affil. Author Recipient Affil. Recipient	Subject	Classification	Keywords	Sites	Location Box No.
M62535 / 001778 CTO-0141/0548 RPT N68711-92-D-4670 1000	04-17-2000 <b>02-04-2000</b> 00141	BECHTEL NATIONAL INC P. BROOKS NAVFAC - SOUTHWEST DIVISION R. SELBY	DRAFT FINAL FEASIBILITY STUDY REPORT FOR OPERABLE UNIT (OU)	ADMIN RECORD INFO REPOSITORY	ARAR CFC COPC DCA DDD DDE DDT FS GW MCL MTBE OU PAH PCB PRG RAB RI TCA TCE TCP TDS TPH UST VEE VOC WATER	12 13S 3 BLDG 16 MWA 18 OU 1	SOUTHWEST DIVISION

UIC No. / Rec. No. Doc. Control No. Record Type Contr./Guid. No. Approx. # Pages	Prc. Date Record Date CTO No. EPA Cat. #	Author Affil. Author Recipient Affil. Recipient	Subject	Classification	Keywords	Sites	Location Box No.
M62535 / 001807 CTO-0187/0084 MM N68711-92-D-4670 0071	04-21-2000 <b>02-23-2000</b> 00187	BECHTEL NATIONAL INC  NAVFAC - SOUTHWEST DIVISION R. SELBY	BCT MEETING MINUTES FOR JANUARY 13, 2000 - TUSTIN INSTALLATION RESTORATION PROGRAM (IRP) AND RCRA SITE CLOSURE (INCLUDES NOTICE OF PUBLIC MEETING FOR 1/13/00)	ADMIN RECORD INFO REPOSITORY	DCE FOSL FS IRP MTBE PAH ROD TCE TCP UST VOC WELLS	11 12 13S 13W 3 5 5A 6 8 9A BLDG 189 BLDG 199 BLDG 250 BLDG 28 BLDG 4 BLDG 50 BLDG 517 DSS 01 DSS 02 MDA 02 MMS 04 MMS 05 MWA 02 MWA 05 MWA 12 MWA 13 OU 1 OU 2 OU 3 OU 4 TOW 11 TOW 12 TOW 6	SOUTHWEST DIVISION

UIC No. / Rec. No. Doc. Control No. Record Type Contr./Guid. No. Approx. # Pages	Prc. Date Record Date CTO No. EPA Cat. #	Author Affil. Author Recipient Affil. Recipient	Subject	Classification	Keywords	Sites	Location Box No.
M62535 / 001044 CTO-200/0043 MM N68711-92-D-4670 0017	03-24-2000 <b>03-01-2000</b> 00200	BECHTEL NATIONAL INC  NAVFAC - SOUTHWEST DIVISION R. SELBY	RESTORATION ADVISORY BOARD MEETING; INCLUDES MEETING MINUTES OF JANUARY 13, 2000 MEETING SIGN-IN SHEETS, AND MAILING LIST PARTS OF WHICH SHOULD BE CONSIDERED CONFIDENTIAL	ADMIN RECORD CONFIDENTIAL	AOC FS IRP RAB RCRA UST	11 12 13E 13S 16 3 5N 5S A 5S B 6 8 DSD 7 HANGAR 190 HANGAR 524 MWA 18 OCY 1 OU 1 OU 2 OU 3 OU 4	SOUTHWEST DIVISION
M62535 / 001798 NONE MISC NONE 0001	04-19-2000 <b>03-08-2000</b> NONE	TUSTIN WEEKLY  VARIOUS PUBLIC	PUBLIC NOTICE OF RESTORATION ADVISORY BOARD (RAB) MEETING OF 3/9/00	ADMIN RECORD	IRP MTBE RAB		SOUTHWEST DIVISION

UIC No. / Rec. No. Doc. Control No. Record Type Contr./Guid. No. Approx. # Pages	Prc. Date Record Date CTO No. EPA Cat. #	Author Affil. Author Recipient Affil. Recipient	Subject	Classification	Keywords	Sites	Location Box No.
M62535 / 000977 CTO-0141/0597 PLAN N68711-92-D-4670 0170	03-24-2000 <b>03-14-2000</b> 00141	BECHTEL NATIONAL INC T. HEIRONIMUS NAVFAC - SOUTHWEST DIVISION R. SELBY	DRAFT RECORD OF DECISION / REMEDIAL ACTION PLAN - NO ACTION SITES AND AREAS OF CONCERN (REFERENCE AR #000729; PROPOSED DRAFT RAP & A/R #805 RESPONSE TO COMMENTS RE: RAP)	ADMIN RECORD	AOC DCA DDD DDE DDT FS IRP MEK PAH PCA PCB PCE RISK ASSESSME ROD SVOC SWMU TCA TCE TPH TRPH UST VOC VSI	AD 04 AS 06 AS 08 AST 02 AST 04 IRP 13E IRP 2 IRP 9A IRP 9B MDA 04 MDA 07 MMS 01 MWA 03 OU 2	SOUTHWEST DIVISION

UIC No. / Rec. No. Doc. Control No. Record Type Contr./Guid. No. Approx. # Pages	Prc. Date Record Date CTO No. EPA Cat. #	Author Affil. Author Recipient Affil. Recipient	Subject	Classification	Keywords	Sites	Location Box No.
M62535 / 001809 CTO-085/0583 RPT N68711-92-D-4670 0050	05-02-2000 <b>04-01-2000</b> 00085	BECHTEL NATIONAL INC  NAVFAC - SOUTHWEST DIVISION R. SELBY	DRAFT FINDING OF SUITABILITY TO LEASE (FOSL) FOR PARCELS 1, 2, 18, 19, 20, 21, & 22 (INCLUDES TWO TRANSMITTAL LETTERS - ONE TO S. FAIR OF DTSC- CYPRESS & ONE TO THE RAB)	ADMIN RECORD INFO REPOSITORY	AOC ASBESTOS AST BRAC FOSL GW HRA MTBE PCB TCE TCP UST VOC WELLS	11 12 13S 9 BLDG 172 BLDG 199 BLDG 2 BLDG 222 BLDG 227 BLDG 26 BLDG 28 BLDG 29 BLDG 5 BLDG 506 BLDG 556 BLDG 93 BLDG B DSD 7 DSS 1 DSS 2 MDA 02 MMS 4 MMS 5 OU1 OU 4 ST 67 TOW 13 UST 105 UST 222 UST 90	SOUTHWEST DIVISION

UIC No. / Rec. No. Doc. Control No. Record Type Contr./Guid. No. Approx. # Pages	Prc. Date Record Date CTO No. EPA Cat. #	Author Affil. Author Recipient Affil. Recipient	Subject	Classification	Keywords	Sites	Location Box No.
M62535 / 00/1810 CTO-0141/0609 RPT N68711-92-D-4670 0250	05-02-2000 <b>04-01-2000</b> 00141	BECHTEL NATIONAL INC  NAVFAC - SOUTHWEST DIVISION R. SELBY	DRAFT FINAL RECORD OF DECISION (ROD) / REMEDIAL ACTION PLAN (RAP) MOFFETT TRENCHES AND CRASH CREW BURN PITS SITE	ADMIN RECORD INFO REPOSITORY	ARAR BCP BRAC COPC DCA DCE DDD ERA FS GW HA HDPE ICL IRP NTU PAH PCB QA QC RAB RAP RCRA RD REMEDIAL ACTIO RI ROD SDWA SOIL SVOC TCA TSDF VOC WATER	1 OU 3	SOUTHWEST DIVISION



UIC No. / Rec. No. Doc. Control No. Record Type Contr./Guid. No. Approx. # Pages	Prc. Date Record Date CTO No. EPA Cat. #	Author Affil. Author Recipient Affil. Recipient	Subject	Classification	Keywords	Sites	Location Box No.
M62535 / 000887 CTO-0141/0609 LTR N68711-92-D-4670 0002	03-22-2000 <b>04-27-2000</b> 00141	NAVFAC - SOUTHWEST DIVISION K. FORMAN DTSC - CYPRESS, CA S, FAIR	TRANSMITTAL OF DRAFT FINAL RECORD OF DECISION/REMEDIAL ACTION PLAN FOR MOFFETT TRENCHES AND CRASH CREW BURN PITS WITH REQUEST FOR COMMENTS NO LATER THAN MAY 22, 2000 (REFERENCE AR #1810 - DRAFT FINAL ROD/RAP)	ADMIN RECORD INFO REPOSITORY	ARAR BRAC RAP ROD	1 OU 3	SOUTHWEST DIVISION
M62535 / 001064 CTO-0141/0609 LTR N68711-92-D-4670 0001	03-28-2000 <b>04-27-2000</b> 00141	NAVFAC - SOUTHWEST DIVISION K. FORMAN  VARIOUS RAB MEMB	TRANSMITTAL OF DRAFT FINAL RECORD OF DECISION/REMEDIAL ACTION PLAN FOR MOFFETT TRENCHES AND CRASH CREW BURN PITS WITH REQUEST FOR COMMENTS NO LATER THAN MAY 30, 2000 (REFERENCE AR #1810 - DRAFT FINAL ROD/RAP)	ADMIN RECORD	ARAR BRAC RAP ROD	1 OU 3	SOUTHWEST DIVISION
M62535 / 000820 CTO-0200/0071 MM N68711-92-D-4670 0022	03-22-2000 <b>05-18-2000</b> 00200	BECHTEL NATIONAL INC  NAVFAC - SOUTHWEST DIVISION	RESTORATION ADVISORY BOARD (RAB) PRE-MEETING MATERIALS FOR MAY 18, 2000 MEETING INCLUDING: RAB MAILER, RAB MEETING NOTICE, AGENDAS, MARCH 9, 2000 MEETING MINUTES AND SIGN IN SHEETS, & MAILING LIST - PARTS OF WHICH SHOULD BE CONSIDERED CONFIDENTIAL	ADMIN RECORD CONFIDENTIAL	AOC AST FS LF MONITORING MTBE RAB ROD	1 6 OU 2 OU 3 OU 4	SOUTHWEST DIVISION
M62535 / 001802 CTO-0200/088 PLAN N68711-92-D-4670 0018	04-19-2000 <b>06-01-2000</b> 00200	BECHTEL NATIONAL INC  NAVFAC - SOUTHWEST DIVISION R. SELBY	PROPOSED PLAN / DRAFT REMEDIAL ACTION PLAN	ADMIN RECORD INFO REPOSITORY	BCP CANCER FS GW MW RI RISK ROD SI SOIL TCE TCP VOC WELLS	12 13S 3 OU 1	SOUTHWEST DIVISION

UIC No. / Rec. No.								
Doc. Control No.	Prc. Date	Author Affil.						
Record Type	Record Date	Author						
Contr./Guid. No.	CTO No.	Recipient Affil.						
Approx. # Pages	EPA Cat. #	Recipient	Subject	Classification	Keywords	Sites	Location Box No.	

((SUBJECT Like '\*TECHNICAL REVIEW COMMITTEE\*' Or SUBJECT Like '\*TRC\*' Or SUBJECT Like '\* FACT SHEET\*' Or SUBJECT Like '\*PROPOSED PLAN\*' Or SUBJECT Like '\*RESTORATION ADVISORY BOARD\*' Or SUBJECT Like '\*RAB\*' Or SUBJECT Like '\*PUBLIC\*' Or SUBJECT Like '\*NEWS\*' Or SUBJECT Like '\*RECORD OF DECISION\*' Or SUBJECT Like '\* ROD\*' Or SUBJECT Like '\*RESPONSIVENESS SUMMARY\*' Or SUBJECT Like '\* LOCAL REUSE AUTHORITY\*' Or SUBJECT Like '\*LRA\*' Or SUBJECT Like '\*WORKSHOP\*' Or SUBJECT Like '\*NOTICE\*' Or SUBJECT Like '\*NEWSPAPER\*' Or SUBJECT Like '\*HEARING\*' Or SUBJECT Like '\*LOCAL REDEVELOPMENT AUTHORITY\*')) AND [UIC NUMBER]='M62535'

**Attachment B**

**TRANSCRIPT OF PUBLIC MEETING**

MARINE CORPS AIR FACILITY TUSTIN  
PROPOSED PLAN/DRAFT REMEDIAL ACTION PLAN

PUBLIC MEETING

Thursday, January 13, 2000

6:00 p.m.

Presented By: Keith Forman  
BRAC Environmental Coordinator

Reporter's Transcripts of Proceedings

Marine Corps Air Facility Tustin  
Building 523  
Tustin, California

Reported By: Jeanine Burgner, CSR No. 6653

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1                                   \* \* \*

2                           Thursday, January 13, 2000

3                                   \* \* \*

4  
5                                   (The following presentation was held  
6 on the record:)

7  
8                           MR. KEITH FORMAN: Okay. I'm about ready  
9 to begin.

10                                   Thank you everybody for attending.  
11 You're attending the Public Meeting Presentation on  
12 Operable Unit 2 and Presentation of No Further  
13 Action Plan. And this is to discuss the Operable  
14 Unit 2, No Further Action Proposed Plan and Draft  
15 Remedial Action Plan.

16                                   I am Keith Forman, the BRAC  
17 Environmental Coordinator for Marine Corps Air  
18 Facility Tustin.

19                                   Purpose of tonight's meeting, this is  
20 part of our community outreach program. And this  
21 Public Meeting gives you, the public, another  
22 avenue to respond to our document and to provide  
23 input and questions here tonight. And there's a  
24 couple different ways to do that.

25                                   We're meeting here on the 13th of

1 January. We're about in the middle of the Public  
2 comment period. Our document, the Proposed  
3 Plan/Draft Remedial-Action Plan, itself has been  
4 out and public-noticed since the very beginning of  
5 January. Hopefully, you've had a chance to read  
6 it. If not, tonight, our copies are provided  
7 outside on the table.

8 Couple different ways, after the  
9 presentation, that you can provide input or ask  
10 questions to clarify things that you've heard.

11 First of all, we do have Jeanine here  
12 tonight. She's a Court Reporter, off to the side  
13 there. She will be taking your questions and comments  
14 at the very end of this meeting.

15 You can also provide written  
16 comments. And there's a couple different ways to  
17 do that.

18 When you look at the Proposed Plan,  
19 on Page 14 of it, it gives three different  
20 addresses, including mine as the BRAC Environmental  
21 Coordinator. You can write to me any questions.  
22 And, also, you can use the forms provided out at  
23 the table here. And you can write your questions  
24 as you hear something that peaks your interest and  
25 then put them in the boxes off there to the side

1 that you can see near Jeanine. And, also, you can  
2 mail the comments in or fax comments to us. And  
3 those numbers and addresses are provided in the  
4 Proposed Plan.

5 So Marine Corps Air Facility Tustin,  
6 as many of you know, has been operationally  
7 closed. And it has an Installation Restoration  
8 Program that the Department of Defense runs. And  
9 we've had an ongoing program here for a number of  
10 years.

11 We have identified different OUs, as  
12 we call them, Operable Units, that represent key  
13 components to the program. There's four key AOCs  
14 on Marine Corps Air Facility Tustin. But we're  
15 focusing tonight on OU, or Operable Unit, 2, which  
16 consists of three of the Installation Restoration  
17 Program Sites and nine of the Areas of Concern. So  
18 we'll be talking about, basically, twelve different  
19 areas, three of them being Sites and nine of them  
20 being Areas of Concern tonight. Those comprise  
21 Operable Unit 2.

22 Provided for you tonight, this is an  
23 overhead showing you where the three Sites and the  
24 nine Areas of Concern are. We also have an  
25 aerial map to the right. And, in fact, we have a

1     handout that I hope many of you have picked up.  
2     It's a pretty colorful one -- It looks a lot like  
3     this -- that identifies the three Sites and the  
4     nine Areas of Concern that are part of the Proposed  
5     Plan for Operable Unit 2.

6                 We've reached this Proposed Plan  
7     after a number of key steps that have taken a  
8     number of years. Some of the investigations on the  
9     Sites and AOCs, you can see there that we have a  
10    process in place that our team completes. And the  
11    processes included identifying sites from a number  
12    of different sources, including, as you can read in  
13    the Proposed Plan, things like photographs and  
14    records.

15                We've then gone out to various areas  
16    and done a lot of environmental sampling. And  
17    tonight's samples mostly consist of taking many  
18    soil samples from different areas across the Base.

19                And then, we've also, after lab  
20    analysis, evaluated that data. And we've completed  
21    risk assessments, which I will speak more a bit  
22    later in this meeting, to complete much of the  
23    process.

24                Some of the formal studies that we've  
25    done include an expanded site inspection and a



1 remedial investigation that comprise both Operable  
2 Units 1 and 2 a couple of years ago and, also, a  
3 facility assessment for the Areas of Concern, the  
4 nine Areas of Concern that are part of the Proposed  
5 Plan tonight.

6 So we have a number of different  
7 studies that we draw upon when we present the data  
8 in the Proposed Plan.

9 I'm certainly not going to spend too  
10 much time reading a slide back to you here; but I  
11 am going to go over, very quickly, the basic twelve  
12 areas that are included under the Proposed Plan.

13 Much better reading and much greater  
14 detail is provided in your Proposed Plan, if you've  
15 had a chance to read it. If not, please, pick a  
16 copy up tonight and read it at your leisure.  
17 There's a quite a bit of information contained here  
18 and a lot of detailed work that's the result of our  
19 investigations.

20 We have a number of Areas of  
21 Concern. And what I'd like to key in on is  
22 basically what the chemicals of potential concern  
23 are and what was the use of the site at the time  
24 that might have led us to label this as an "Area of  
25 Concern."

1                   As you can see here, this is four of  
2                   them. And we have various codes that we use that  
3                   might seem a little enigmatic to you. But, for  
4                   instance, MDAs are always Miscellaneous Disposal  
5                   Areas. That's just a label that we use to help  
6                   categorize an Area of Concern on Base. We have  
7                   about two hundred and eighty of them on the Base,  
8                   which we're only talking about nine of them  
9                   tonight. But that's why we use such a labelling  
10                  system there, just to try to put them into  
11                  different categories for purposes of investigation.

12                 As I said, a focus that you might be  
13                 interested in is the different uses of these areas  
14                 on Base. When you look at the area maps, and then  
15                 what the chemicals of concern that we were looking  
16                 at are at each site, and you can see there's a  
17                 number of different ones here listed. You're going  
18                 to see VOCs a lot. Those are volatile organic  
19                 compounds. And a volatile organic compound is  
20                 often a cleaning solvent or a paint thinner. And,  
21                 often, a lot of the common ones tend to evaporate  
22                 very quickly; they're very volatile. And, of  
23                 course, they're used on a base which had aviation,  
24                 and such, particularly a military base where  
25                 solvents and cleaners were used quite often.

1                   In addition to that, metals, series  
2 of metals were investigated at many of the AOCs and  
3 Sites.

4                   Here's another group. And again,  
5 here, you're seeing as one of the three Sites is  
6 13 East that was identified. Quite a number of  
7 chemicals of potential concern were analyzed  
8 there.

9                   And then, we have three more AOCs  
10 that represent different areas.

11                   How did they become an AOC?

12                   When a base is put on the Base  
13 Realignment and Closure list and you begin  
14 preliminary assessments and baseline surveys of the  
15 base, you look at your records of the functions  
16 that went on, on the base, and you also look at the  
17 photographic records.

18                   So you'll see that a lot of these, we  
19 investigated by looking at these areas.

20                   For instance, major spill area, there  
21 was a record of the spill; so we knew we had an  
22 obligation to investigate that.

23                   Here, the Area of Concern was  
24 initially identified by photos and probably by  
25 interviewing members of the staff, as well, on the

1 Base at the time.

2 Here is another Miscellaneous  
3 Disposal Area, and Installation Restoration Program  
4 Site No. 2.

5 Here, you can see the investigation  
6 actually involved both soil and groundwater.

7 In our final grouping here for the  
8 twelve areas involves Installation Restoration  
9 Program Site 9, which because they're not  
10 geographically co-located, we broke up into 9A and  
11 9B.

12 And Miscellaneous Wash Area No. 3,  
13 which was a former wash pad, that is an Area of  
14 Concern that we also investigated for soil and  
15 groundwater.

16 And, again, in the Proposed Plan,  
17 these three Sites and nine Areas of Concern are  
18 discussed in detail in the Proposed Plan itself.

19 Also discussed in the Proposed Plan  
20 is the risk management decision that's made once  
21 you gather the data together.

22 The Proposed Plan is an offering to  
23 the public of recommendations, not a decision.  
24 We're now seeking input from the public, from the  
25 Restoration Advisory Board that's going to be

1 meeting here in less than an hour, and from the  
2 BRAC Cleanup Team regulators that oversee this  
3 Base.

4                   Some of the things that are  
5 considerations, as you can see here in the risk  
6 management decision, include things like the type,  
7 location and concentration of the chemicals of  
8 potential concern that were looked at. But they  
9 also concern other things, like what is the future  
10 reuse, planned reuse, of the area; and how should  
11 it be -- how should the data be screened in light  
12 of the future reuse. And also, then, using  
13 conservative risk estimates, our models that we use  
14 for the risk assessment tend to be very  
15 conservative in nature.

16                   Part of the risk assessment that  
17 you'll be reading or have read in the Proposed Plan  
18 involves what we call an "HHRA," a Human Health  
19 Risk Assessment. And very important four-step  
20 process that you can see there.

21                   A key thing to remember about the  
22 Human Health Risk Assessment is once you know what  
23 you're talking about, the particular chemicals or  
24 compounds that are involved, you've got to identify  
25 different pathways. There are many different

1 pathways. And in the Proposed Plan, we discuss  
2 those that pertain to those nine Areas of Concern  
3 and three Sites.

4 But when we're looking at pathways  
5 and doing a risk assessment, we look at things like  
6 dermal contact with the compound, ingesting the  
7 compound, breathing in a compound, the level of  
8 exposure to an individual in either a building or a  
9 place on the base, things like that that are all  
10 factored in. And then, we estimate the health  
11 hazards and characterize the risk at the site.

12 There's basically two sides to the  
13 house, that which addresses the cancer health  
14 risk -- Many of you are familiar with that. You  
15 hear that often today in the media. With a cancer  
16 health risk, there's a range of decision-making,  
17 between one in every ten thousand and one in every  
18 million additional deaths attributable to cancer  
19 because of exposure to a certain compound. That  
20 scientific notation, ten to the minus fourth and  
21 ten to the minus sixth, is what you'll often see  
22 used. But it's basically a range of one in ten  
23 thousand to one in a million additional cancer  
24 risks because of certain exposures to compounds or  
25 chemicals that are being analyzed. That is the

1 range that is within the management decision  
2 arena.

3 On either side of that, you have an  
4 extreme. If it's more than that, then it's simply  
5 considered unacceptable.

6 In other words, there has to be some  
7 sort of action taken because a human health risk  
8 has been identified.

9 On the other extreme -- And a number  
10 of the twelve areas that we're talking about  
11 tonight, as you can see in the Proposed Plan, fall  
12 into this arena -- is there's allowable risks where  
13 the risk of an additional cancer case is much, much  
14 less, in that the human health risk is very small,  
15 indeed. And in that case, it becomes an easy  
16 decision to make, in fact, that no further action  
17 needs to take place.

18 Now, that's the first side of the  
19 house.

20 The second side is the noncancer  
21 health risk, which gives you something called an  
22 "HI," or a Hazard Index. And we go into detail on  
23 a sidebar in the Propose Plan as to what exactly  
24 that is and what meaning that has. And that  
25 uses -- It's a cumulative Hazard Index on a

1 particular location of the Base. And if you see a  
2 decimal out of that, something less than the No. 1,  
3 then you have an allowable risk. If you see  
4 something greater than 1, then you have generally  
5 an unacceptable risk.

6 Okay. So, now, we're going to take a  
7 look here. And again, I'm showing you material  
8 that you can find, again, in your Proposed Plan.  
9 And this is a lot of data even for someone who's  
10 working in the field to look at so quickly. And  
11 this isn't meant to be a substitute for you to  
12 understand and absorb this. Again, you have your  
13 Proposed Plan to read to really look at this in  
14 detail.

15 But, basically, this table helps to  
16 identify what the particular one of the twelve  
17 areas we're talking about is. And then, basically,  
18 what the results were in the Risk Assessment, both  
19 for a Hazard Index, which is the noncancer side of  
20 the house, and then the cancer-risk calculated  
21 there.

22 Here's Site 13 East, and then three  
23 other Areas of Concern. And, again, greater detail  
24 is provided in the Proposed Plan. But you can see  
25 what the soil cancer risk is telling you here.



1 That would be 1.3 times ten to the minus fifth, 1.5  
2 times ten to the minus sixth, or 1.5 additional  
3 cases in one million on the risk side, the cancer  
4 risk side.

5 On the noncancer side, you have less  
6 than one for all these, which is good news. And  
7 then, we identify, basically, what our results were  
8 from that.

9 And then, we also discuss future  
10 cancer risks and future Hazard Index as it applies.

11 Part of that is because if you have a  
12 chemical of concern, for instance, in soil and  
13 there's not a threat, well, something in the soil  
14 can eventually, in some cases, be leached into the  
15 groundwater. And then, we have to calculate  
16 separate risks for the groundwater in the future  
17 years. And that's partly based on the rate of  
18 adsorption or diffusion or leaching.

19 And here's our final -- the final  
20 part of the table that you'll find in the Proposed  
21 Plan, which involves Installation Restoration  
22 Site 2 and 9, and then Miscellaneous Wash Area  
23 No. 3, which is an Area of Concern.

24 And in some cases, of course, we  
25 found -- For instance, this is less than one in one

1 million additional cases, a very, very low risk  
2 area, where actually, after doing an investigation,  
3 after looking at photographs, we found, in fact,  
4 that there were no contaminants identified, and  
5 that everything -- for instance, metals in the  
6 groundwater -- were found to be within  
7 normally-expected ranges.

8 And that shows you -- This shows you  
9 how thorough we were with Areas of Concern on the  
10 Base. Any little thing can trigger a further  
11 investigation to cover a potential area of concern.

12 The Proposed Plan that you are  
13 reviewing tonight and that I'm speaking on is  
14 another step in the whole process. Our  
15 Installation Restoration Program follows federal  
16 law, the National Contingency Plan, the NCP. And  
17 many steps are identified in that that must be  
18 taken under this law.

19 We are currently on the Proposed  
20 Plan/Draft Remedial Action Plan phase. We're here,  
21 where the public has an opportunity during the  
22 public comment period -- and, additionally, here  
23 tonight at the meeting, you have an opportunity to  
24 comment on the Plan and question it.

25 Now, how did we get here?

1                   Again, we did investigations. We did  
2 other documents, facility assessments and an  
3 expanded site inspection.

4                   In some cases -- for instance, at  
5 Site 2 and Miscellaneous Wash Area 3 as well as in  
6 portions of Site 9 -- we actually did removal  
7 actions.

8                   In other words, we identified certain  
9 risks that called for further action. We completed  
10 the further action.

11                   And, now, we're recommending no  
12 further action needs to be taken in order to close  
13 out the site or Areas of Concern. And that's what  
14 our Proposed Plan is all about. These are the  
15 recommendations tonight.

16                   Now, we'll take that input; we'll  
17 respond to it. And the next step will be a Record  
18 of Decision or the Final Remedial Action Plan for  
19 these three Sites and nine Areas of Concern. So  
20 we're here. And until the end of January, we'll be  
21 looking for comments. Then, we'll move on to the  
22 next phase, where we'll take our recommendations,  
23 take your input, and then make a decision.

24                   Couple of different sources: I refer  
25 to other documents other than the Proposed Plan,

1 the fifteen-page handout here that you have  
2 available to you that's either been mailed to you,  
3 if you're on a mailing list, or is available out  
4 here at the table, the entryway. There's other  
5 documents that you may wish to investigate.  
6 There's a couple different ways to do that.

7 The Administrative Record is located  
8 here in this building, in Room 111, on your right,  
9 at the end of the hallway. And you can arrange to  
10 review documents here in this building, if that's  
11 most convenient for you, by calling me at one of  
12 the two numbers listed there.

13 About ninety percent of the time, I'm  
14 actually in San Diego, at this number, the (619)  
15 number. But in either case, you can reach me and  
16 arrange for a time to review documents.

17 Also, we have something called an  
18 "Information Repository," where, our documents --  
19 not just this Proposed Plan, but all of the  
20 documents for the Base go. And that's located at  
21 University of California, Irvine, campus. And  
22 those are the numbers there that you can call to  
23 check hours and to get directions from where you're  
24 coming to the UCI campus if you wish to go to the  
25 Information Repository and look at our complete set

1 of documents for the Base.

2 And here's a list with a little more  
3 detail than we give you in the Proposed Plan. If  
4 you looked at the Proposed Plan, at Page 14, it has  
5 my address, how to write me there with comments, or  
6 how to phone me or fax me.

7 In addition, it has other points of  
8 contact. For instance, at DTSC, the Department of  
9 Toxic Substances Control, the California State  
10 regulators, how to reach them If you wish to  
11 comment to them about the Proposed Plan.

12 But, also, we have environmental  
13 engineers that work with me on the Base. They're  
14 here tonight, Content Arnold and DeAnna Dunbar.  
15 And they can be reached at these numbers.

16 And again, there's our e-mail  
17 addresses, as well- feel free to e-mail us, if you  
18 have that capability, with any questions.

19 And that concludes the Presentation  
20 tonight.

21 We're available for questions with  
22 Jeanine. She needs to have the ability to record  
23 those questions, as a Court Reporter does, so that  
24 we can have those in a record and an then respond to  
25 them. And that becomes a legal record for us. So

1 if you have questions, please, don't hesitate to  
2 either write them down on the form provided outside  
3 on the table and put them in the boxes, or visit  
4 Jeanine and she can verbally take any questions,  
5 comments you have. And then, we will formally  
6 respond to that. And that will become part of the  
7 formal, legal record which you will eventually be  
8 able to find at the Information Repository at  
9 University of California, Irvine.

10 In addition to that, you don't need  
11 to comment tonight. You can take your time and  
12 read the Proposed Plan. And then, of course, you  
13 can mail me any of your comments or questions at  
14 the addresses indicated on Page 14 of the Proposed  
15 Plan.

16 So, I thank you for attending tonight  
17 and wish you happy reading on the Proposed Plan.  
18 We look forward to your inputs. Thank you.

19 Also, feel free to come to the front  
20 of the room here. We do have aerial maps much like  
21 the handout, only slightly larger, that identifies  
22 where these are on the Base.

23 One of the interesting things about  
24 this map, I might add, is that this superimposes  
25 the roadways that are proposed by the City of

1 Tustin. So you're looking not only at the present  
2 in the form of an aerial map, but you're looking at  
3 an overlay of the roadways and the streets that  
4 will be constructed as part of the City of Tustin's  
5 reuse plan. So you can see where these Areas of  
6 Concern and Sites are located in relation to those  
7 changes.

8  
9 (The Public Meeting Presentation  
10 concluded at 7:15 p.m.)  
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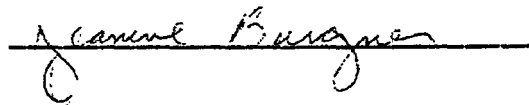
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REPORTER'S CERTIFICATE

THE UNDERSIGNED SHORTHAND REPORTER DOES HEREBY  
DECLARE:

THAT THE FOREGOING WAS TAKEN BEFORE ME AT THE  
TIME AND PLACE THEREIN SET FORTH AND WAS RECORDED  
STENOGRAPHICALLY BY ME AND WAS THEREAFTER TRANSCRIBED,  
SAID TRANSCRIPT BEING A TRUE COPY OF MY SHORTHAND  
NOTES THEREOF.

IN WITNESS WHEREOF, I HAVE SUBSCRIBED MY NAME  
THIS DATE: FEB 02 2000

A handwritten signature, "Jeanne Burgeson", is written over a horizontal line.



**Attachment C**

**U.S. EPA AGREEMENT  
WITH SELECTED REMEDY**



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION IX  
75 Hawthorne Street  
San Francisco, CA 94105

September 28, 2000

Mr. Keith Forman, 06CC.KF  
BRAC Environmental Coordinator  
Marine Corps Air Facility Tustin  
Southwest Division  
Naval Facilities Engineering Command  
1220 Pacific Highway  
San Diego, CA 92132-5190

Re: Record of Decision, OU-2, No Action Sites and Areas of Concern, Marine Corps Air Facility, Tustin, September, 2000

Dear Mr. Forman:

The United States Environmental Protection Agency, Region IX (USEPA) has received and reviewed the Record of Decision for OU-2, No Action Sites and Areas of Concern for the Tustin Marine Corps Air Facility, September, 2000. The Record of Decision (ROD) addresses a number of sites and areas of concern where no remedial action is required to protect human health and the environment.

Since the Marine Corps Air Facility Tustin is not on the National Priorities List, USEPA does not have a formal concurrence role and will not be signing the ROD. However, the USEPA has been an active participant on the team overseeing the environmental investigation, testing and evaluation in support of the remedial work at these sites. The Department of the Navy (DON) has worked in cooperation with the State of California Department of Toxic Substances Control and the Santa Ana Regional Water Quality Control Board as well as with the USEPA in the development of alternatives as well as remedy selection for these sites. We therefore find the ROD sufficient to meet requirements and are in agreement the selected remedy for these IR sites.

We wish to thank the Navy for the opportunity to be involved in the work at the Marine Corps Air Facility Tustin. We look forward to working with the Navy and regulatory agencies in the future to insure a thorough cleanup and safe transfer of all DON property comprising the facility.

Sincerely,

A handwritten signature in black ink, appearing to read "Daniel A. Meer", is written over the typed name.

Daniel A Meer, Chief  
Federal Facilities Branch

cc: John Scandura, DTSC Southern California, Operations  
Gerald Thibeault, Regional Water Quality Control Board, Santa Ana Region